

# Addendum To RFP

## OPERATION AND MAINTENANCE SERVICES FOR METRO RAIL TRANSIT SYSTEM ON THE ORANGE LINE IN LAHORE (ALI TOWN TO DERA GUJRAN)



**THE PUNJAB MASSTRANSIT  
AUTHORITY Government of the Punjab**  
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# Addendum to the RFP

Due to some clarifications required in the RFP document, the following addendum is hereby issued; which shall form a part and parcel of the original document titled

" OPERATION AND MAINTENANCE SERVICES FOR METRO RAIL TRANSIT SYSTEM ON THE ORANGE LINE IN LAHORE (ALI TOWN TO DERA GUJRAN)"

advertised internationally on January 19, 2019. The changes are highlighted. Page No 217 of the original RFP is deleted. The contents of this addendum shall supersede/replace pages 4, 5, 7, 10, 11, 14, 20, 21, 25, 26, 32, 34, 39, 40, 41, 45, 63, 69, 70, 72, 77, 78, 79, 85, 86, 87, 88, 89, 93, 94, 137, 138, 139, 140, 142, 143, 144, 145, 147, 148, 149, 151, 152, 153, 154, 155, 157, 158, 161, 165, 168, 171, 172, 184, 188, 189, 191, 192, 194, 195, 197, 198, 199, 200, 201, 203, 205, 214, 215, 216, 220 and 221 of the original RFP document, and shall be read as part of the RFP document uploaded on the following website:

[www.pma.punjab.gov.pk](http://www.pma.punjab.gov.pk) , [www.pppra.punjab.gov.pk](http://www.pppra.punjab.gov.pk)

**This addendum shall supersede all previous addendums. Special attention is drawn on pages 214-216 containing modified Financial Proposal Submission Forms**

**The Punjab Masstransit Authority**

**Record of Meeting**

Agenda

**TENDER FOR OPERATION & MAINTENANCE SERVICES FOR METRO RAIL  
TRANSIT SYSTEM ON THE ORANGE LINE IN LAHORE (FROM ALI TOWN TO  
DERA GUJRAN)**

Date:

30-01-2019

Venue

Committee Room,  
Punjab Metrobus Authority

Chair:

Mr. Ozair Shah, General Manager  
Operations ,PMA.

**List of Committee Participants:**

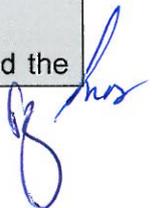
1. Mr. Rizwan Aziz, Manager Operations (Technical), PMA
2. Mr. Obaidullah Jan, Financial Specialist, PMA
3. Mr. Adil Mumtaz, Assistant Manager (Operations),PMA
4. Mr. Suilman Majeed, Transport Department, Government of Punjab
5. Mr. Fareeha Rizvi, Law Department, Government of Punjab

**List of Bidders as Participants**

1. Mr. Wars Lei MD, Pakistan, CRCC
2. Ms. Maryam Tariq, CRCC
3. Mr. Jian Wer Managing Director, CRCC 16
4. Ms. Khadija Zeeshan Marketing Executive, CRCC 16
5. Mr. Duan Jiomgtaw, Norinco intl
6. Mr. Guo Kaiyong, NORINCO intl
7. Mr. Zv, CR- NORINCO intl
8. Mr. Tang, CR- NORINCO intl
9. Mr. Imran Masood, Sinaco
10. Mr, Husnain. Platform Turizm
11. Mr, Bilal Haider, Platform Turizm
12. Mr. Yasir Arslan, Platform Turizm
13. Mr. Faisal Siddiqui (CEO), Daewoo Pakistan Express Service Ltd.
14. Mr. Absar Ahmad, Daewoo Pakistan Express Service Ltd.
15. Mr. Ahsan fayyaz (GM OPs), Daewoo Pakistan Express Service Ltd.
16. Mr. Maula Raza, Daewoo Pakistan Express Service Ltd.
17. Mr. Jawad Saleem (CEO), Equinox (Pvt.) Ltd
18. Mr, Muneeb Malik, Equinox (PVT) Ltd.
19. Mr. Ali Hasan, LMKT (Pvt) Ltd
20. Mr. Nasir Tanveer, LMKT (Pvt) Ltd
21. Mr, Abdul Samad, Executive Director, Crimson Engineering
22. Mr. Ahsan Mahmood, Crimson Engineering
23. Mr. Rana Abrar Anwer, Crimson Engineering
24. Mr. Awais Suhail, Pak German Engineers
25. Mr. Jamil Ahmad, First Bus
26. Mr, Hamza Kirmani, First Bus

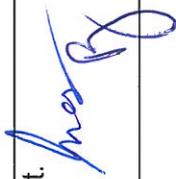
**DECISIONS / DISCUSSIONS**

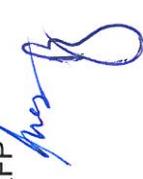
The meeting started at 1100 hours. The General Manager Operations, PMA formally welcomed the



participants and started the meeting. Question and Answer session was conducted afterwards. Detailed Minutes of Meeting are attached at **Annex A**. The list of participants is attached as **Annex B**. The meeting ended at 0300 Hours with a note of "Thanks"

*M. J. J.*

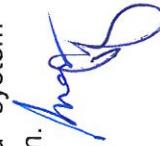
Sr. No	QUERIES / COMMENTS	PMA'S RESPONSE
A	M/s NORINCO	
1.	<p>The Service Provider will bear the withholding taxes only, i.e. 7% of contract value.</p> <p><i>The income withholding tax for the payment of mobilization and Operation, which is 7% of mobilization fee and Operation fee, has been considered. The Employer shall be responsible for the payment of balance due to the increasing of income withholding tax rate according to regulations of Pakistan. The L2SP1 shall be exempted from all obligation or responsibility for the payment of all the other Pakistani tax arising out of the Contract such as sales tax, etc.</i></p> <p><i>In the event that the L2SP1 is obliged to pay any Taxes as required by the Law over and above the 7% withholding tax stipulated in Clause 0, the Employer shall pay the excess part on behalf of the L2SP1.</i></p> <p><i>In the event that the L2SP1 is obliged to pay any Taxes as required by the Law over and above the 7% withholding tax stipulated in Clause 0, the Employer shall pay the excess part on behalf of the L2SP1.</i></p> <p><i>only 7% withholding tax is to be borne by the L2SP1</i></p>	<p>The Service Provider shall bear all taxes except sales tax on services. Please see revised Clause 34.1. of Section 3 "Draft Agreement and Terms of Reference" of RFP</p>
2.	<p>The Contract price includes all applicable taxes but excludes Sales Tax.</p> <p><i>The quoted price shall be :</i></p>	<p>Correct.</p> 

	<p><i>is inclusive of all applicable taxes as per Laws of the Government of Pakistan, but shall be exclusive of Sales Tax on Services which shall be added by the Client over and above the offered amount, as applicable/required under the relevant Tax Laws, to arrive at the Contract Price. Accordingly, the Contract Price shall be subject to adjustments for change in rate of Sales Tax on Services as and when applicable.</i></p> <p><i>The monthly Contract Price for the Services required shall be in Pakistan Rupees (PKR) ----- [----- only] which includes all applicable taxes but excludes Sales Tax on Services</i></p>	
3.	<p>This Contract shall become effective upon issuance of Letter by the Employer to the Service Provider to commence commercial operation on the Orange Line on date mentioned therein.  <i>The Effective Date ("Effective Date") is the date of start of Commercial Operations i.e. the Commencement Date.</i>  <i>The Commencement Date shall be 30-07-2019 or any date thereafter fixed by the Employer.</i>  <i>The L2SP1 shall provide to the Employer a bank guarantee, at least 7 days prior to the advance payment (i.e. effective date) by the Employer, as notified by the Employer</i></p>	<p>The employer shall issue a letter to the Service Provider to notify the date of commencement of O&amp;M Services.</p> <p>The effective date of the contract shall be the date of commencement of O&amp;M Services</p>
4.	<p>Is the Mobilization Bond and Advance Payment Guarantee the same?  <i>The Mobilization Bond shall come into full force and effect upon the date when the L2SP1 receives Advance payment, and shall be encashable in accordance with the terms thereof.</i>  <i>The Advance Payment Guarantee shall be in the amount of the Advance payment stated in the Preamble against Mobilization of the</i></p>	<p>The reference that pertains to Mobilization Bond is deleted. See revised Clause 10.22.2. of Section 3 "Draft Agreement and Terms of Reference" of RFP</p> 

	L2SP1	
5.	<p>There are some conflicts in describing the time to submit the Performance Security to the Employer.  <i>within ten (10) working days of the receipt of the Acceptance Letter from the Client;</i>  <i>it has been stipulated in the Tender Document that the successful Operator shall furnish Performance Security, within ten (10) working days of the receipt of the Acceptance Letter from the Client</i>  <i>The L2SP1 shall provide a Performance Security under the Contract in the prescribed Form. The said Security shall be furnished by the L2SP1 within fifteen (15) days after the signing of the Contract Agreement for delivery of L2MCS.</i></p>	<p>The time to submit the performance guarantee shall be 21 working days after the date of issuance of Letter of Award. See revised Clause 10.2 of Section 3 "Draft Agreement and Terms of Reference" of RFP</p>
6.	<p>There are some conflicts in describing the time to return the Performance Security to the Service Provider.  <i>The Performance Security shall be returned to the Bidder within thirty working days after the expiry of its validity on written request from the Service Provider.</i>  <i>the Performance Security shall be returned to the L2SP1 within fourteen (14) days of the issuance of the full Hand Back Certificate.</i></p>	<p>The Performance Security shall be returned to the Service Provider within 14 days after the date of issuance of Hand Back Certificate of Equipment as per Clause 7.2 of Section 3 "Draft Agreement and Terms of Reference" of RFP. All conflicting clauses have been removed.</p>
7.	<p>There are some conflicts in definition of mobilization period.  <i>The period between the date of issuance/acceptance of Letter of Award and Commencement Date shall be taken as Mobilization Period.</i>  <i>The time period available between the Effective Date of this Contract Agreement and commencement date, i.e. the Mobilization Period, shall be effectively used by the L2SP1 to recruit necessary human resource .....</i></p>	<p>Mobilization period is the period from date of issuance of LOA and date of commencement of the O&amp;M Services. All references have been modified to reflect the foregoing definition.</p>
8.	<p>There are some conflicts between this requirement and the SLA.  <i>The Employer may withhold a Certificate of Payment or make any adjustments on account of any defects/shortcomings in the services</i></p>	<p>The amount deducted on account of services not rendered and non-compliance (defects / shortcomings) to the Contract from the monthly payments shall be subject to Clause 25.1 of Section 3 "Draft Agreement</p>

*As*



9.	<p><i>provided for the calendar month.</i></p> <p>Some description in SLA may not be accurate.  Is this KPI-1 for FAS and BAS supposed to be KPI-2?  <math>TF = Total\ Number\ of\ Faults\ Considered\ for\ KPI-1: = A + B \times (C/D)</math></p> <p>Is this KPI-2 for FES supposed to be KPI-1?  <math>TF = Total\ Faults\ Considered\ for\ KPI-2: = A + B \times (C/D)</math></p> <p>Is this KPI-2 for HVAC system supposed to be KPI-1?  <math>TF = Total\ Faults\ Considered\ for\ KPI-2: = A + B \times (C/D)</math></p> <p>Is this KPI-2 for PSD-APG system supposed to be KPI-1?  <math>TF = Total\ Faults\ Considered\ for\ KPI-2: = A + B \times (C/D)</math></p> <p>Is this KPI-2 for Elevator and Escalator system supposed to be KPI-1?  <math>TF = Total\ Faults\ Considered\ for\ KPI-2: = A + B \times (C/D)</math></p> <p>Are the numbers in brackets wrongly kept?  "5945(594.5)x TFCritical  665(66.5x TFNonCritical "</p>	<p><i>and Terms of Reference" of RFP and Section 04, SLA.</i></p> <p>These are typographic errors which have been corrected.</p>
10.	<p>This requirement has surpassed the capacity of the system, and will increase the quantity of drivers in the initial stage, and cause redundancy of them when the headway reduces to normal. Besides, it will also lead to unbalanced mileage of trains for inspection and repairs, as many will reach the monthly inspection threshold at the same time and number of trains standby will be reduced.</p> <p>If the system is to be operated in a headway of 5 minutes, as the full operation of a complete route will cost 90 minutes, it means that 18</p>	<p>The 5 minute headway requirement is meant to support the passenger influx during initial few months from the date of commencement of the OLMRTS operation. After such period, the headway will be adjusted according to the prevailing demand. Nevertheless, the capacity of the designed system is adequate to support the 5 minute headway operation.</p> 

	<p>pairs of trains will be running on line. For the 16 hours/day required by the Employer, total pairs of trains running online every day will be 192, which has surpassed the designed maximum 146 pairs.</p> <p><i>The Employer intends to run the system at a headway of 5 minutes during Service Hours in the first few months after commencement and then adjust the headway as per peak passenger hours established through AFC reports.</i></p>	
11..	<p>Feasibility and cost to monitor all mass transit lines has to be re-assessed.</p> <p><i>The Employer is planning to monitor all mass transit lines of Lahore in the OCC center of the Orange Line. With respect to use of administration building in the depot and the Operation Control Center (OCC), it is clarified that a team comprising of senior and junior staff members of the Employer shall be resident in the administration building/OCC to manage/monitor all mass transit operations of Lahore, including the operations of the Orange Line. The L2SP1 shall plan for his use of the administration building and OCC in coordination with the Employer in a manner that reasonably accommodates the nominated staff of the Employer.</i></p>	Reference to all mass transit lines is deleted.
12.	<p>Discrepancies of L2SP2,L2SP3 and L2SP4</p> <p><i>Is L2SP2 is for House Keeping and Janitorial Service or AFC?</i></p> <p><i>"Operation and Maintenance of:- • House Keeping and Janitorial Service</i></p> <p><i>L2SP2 (Line 2 Service Provider 3) "</i></p> <p><i>"Operation and Maintenance of:- • Automated Fare Collection (AFC)</i></p> <p><i>L2SP2 (Line 2 Service Provider 2"</i></p> <p><i>Is L2SP3 is for AFC or for security and safety service?"</i><i>Operation and Maintenance of:-</i></p> <ul style="list-style-type: none"> <li><i>• Automated Fare Collection (AFC)</i></li> </ul>	<p>The discrepancies have been removed.</p> 

	<p>L2SP3 (Line 2 Service Provider 2)"</p> <p>"Rendering of:- Security and Safety Services L2SP3 (Line 2 Service Provider 3)"</p> <p>Is L2SP4 for Security and Safety Services or House Keeping and Janitorial "Rendering of:- • Security and Safety Services L2SP4 (Line 2 Service Provider 4)"</p> <p>"Rendering of:- House Keeping and Janitorial L2SP4 (Line 2 Service Provider 4)"</p>	
<p><b>B</b></p> <p>1.</p>	<p>M/s Platform</p> <p>Clause 6.1 of Instructions to the Bidders:</p> <p>Whether general eligibility criteria is mandatory for both the J.V members or any one member meets the general eligibility criteria is sufficient?</p>	<p>In Section 6.1, the applicability of each criteria of General Eligibility in case of Joint Venture is clearly mentioned in brackets at the end of each statement of that criteria for e.g.</p> <p>6.1.2 has a registered office in the respective country of origin (In case of JV, Applicable to all members)</p>
<p>2.</p>	<p>Clause 6.1 of Instructions to the Bidders</p> <p>Whether established place of business in Pakistan is mandatory for both the Joint venture members?</p>	<p>Local registration is mandatory only for the Lead Member in case of JV. Please refer to Clause 8 of Section 2 "Instruction to the Bidders" of RFP for details.</p>
<p>3.</p>	<p>Clause 6.2 of Instructions to the Bidders</p> <p>In the context of Operations of Trains, Maintenance of Rolling Stock and Maintenance of Track Experience kindly clarify/describe whether experience in three metro lines of any category for three years is enough? Furthermore kindly also clarify whether experience</p>	<p>JV shall be considered as one entity in which combined experience of all members shall be considered for e.g. number of years of experience of each member in a particular category shall be added to arrive at total number of years of experience in that category for Technical Eligibility. The same approach goes for the Technical Evaluation where scoring will be done jointly. It is further clarified that in case of JV, experience of 03 years in a</p>

	<p>of any J.V. member is sufficient for qualification of J.V.?</p>	<p>particular Metro Line must pertain to single member only, however the number of Metro Lines will be considered jointly / collectively. The Metro Line in case of Single Bidder or JV may pertain to any type from 1 to 4.</p>
4.	<p>Clause 8 (C) of Instructions to the Bidders: Whether relevant experience for locally registered company is mandatory or whether relevant experience of any foreign partner having not locally registered office is sufficient for qualification of local partner also?</p>	<p>Please refer to the answer of question at Serial No B(3). and revised Clause 8 (c) of Section 2 "Instruction to the Bidders" of RFP</p>
5.	<p>Clause 11.5.7 of Instructions to the Bidders: Technical eligibility criteria is very complex kindly simplify the same. Furthermore, Documentary evidence of various multipliers for each category as mentioned from page # 157 to page # 182 are very difficult to obtain kindly simplify the technical eligibility criteria and documentary evidence requirements.</p>	<p>Supporting evidence to establish the required number of years of experience for Technical Eligibility (TE) is required. The page numbers mentioned in the question refers to Technical Evaluation Criteria (TEC) and not the Technical Eligibility. Most of the information asked in the TEC is required to be provided through Technical Proposal Submission Forms (TPSF). Some documents and evidences are required in specific sections but not to the extent as perceived in the question. Please review TEC and TPSF carefully. TE and TEC are already clear and specific to avoid any ambiguity and ensure transparency. TEC requires a computation process based on weightsages which has been explained in a detailed manner in RFP.</p>
6.	<p>Who will procure the spare parts for operations and maintenance of Track, Rolling Stock, Escalators, Elevators, Generators, firefighting system, Water Sewerage and Drainage system, HVAC system, Low Voltage Power Supply Transformers, Illumination, electrical Appliances, Communication System including Telephone System, Radio Communication System, Public Address System, Clock System, Passenger Information System, CCTV System, Access Control System, Transmission System including Fiber Optics, Visual Control System, Audio and Video Recorder System, Signaling</p>	<p>L2SP1 shall procure all spare parts. The costs of these spare parts will be reimbursed depending upon the scenarios stipulated in Clause 54.4 (12) of Section 3 "Draft Agreement and Terms of Reference" of RFP which has been revised.</p> 

	<p>System, Passenger Screen Doors (PSDs), Fire Alarm System (FAS), Building Access System (BAS), Network Monitoring System, High Voltage Sub-station (HVSS) and related, Low Voltage Power Supply (before and after but except 32kV Generators), Traction Supply System, Power Supervisory Control and Data Acquisition System (PSCADA) etc.</p> <p>If these are to be procured by the L2SP1 than whether the cost of spare parts for operation and maintenance of above described systems are reimbursable by the Authority or not?</p>	
7.	<p>Clause 10.6 (b) of Draft Agreement Kindly modify the said clause as foreign exchange rates and inflation rates are adjustable as per clause 38 of the Agreement</p>	<p>Clause 10.6(b) refers to the Bidder satisfying itself by evaluating risks of foreign exchange. It has no direct relevance to Clause 38 which is meant to cover w.r.t foreign exchange rates. Also see response at Sr. No. B(8).</p>
8.	<p>Clause 38 of Draft Agreement: Kindly modify the definition of N by enhancing the number of quarters till the conclusion of the Agreement.</p> <p>As per clause 38.1 current price will be adjusted after each quarter so whether adjustment will also be given for each and every month of each quarter?</p> <p>Furthermore, contract price will be adjusted after each quarter for first five years only so what will be the contract price for remaining six years? Annual adjusted bid price after five years will remain valid for the remaining six years?</p> <p>Furthermore, kindly explain the mechanism for annual adjustment of contract price.</p>	<p>Clause 38.1 of Section 3 "Draft Agreement and Terms of Reference" of RFP has been modified. The Parameter N has been redefined as under:-</p> <p>N1: Sequential Monthly invoice No. since commencement of Train Operation.</p> <p>N2: Sequential Monthly invoice No. since commencement of Train Operation but not more than 60.</p> <p>There is no mechanism for Annual Adjustment specified in the RFP.</p>
9.	<p>Section 05 Technical Evaluation Criteria: Kindly Simplify the evaluation criteria as the calculation method is</p>	<p>Please refer to the answers given to the questions at Serial No B(3) and B(5). </p>

	complex and requires bundles of document for scoring purpose.	
	Furthermore, kindly also clarify that in case of J.V. all the members collectively have to secure 75 marks for technical qualification?	
10.	Please specify the exact depot location and covered area therein.	The depot is located at Dera Gujran near Ring Road Interchange. The covered area is approximately 75 International Acres
11.	Clause 29 Insurance of Draft Agreement: Who will bear the cost of insurance? Client will reimburse the cost of insurance or L2SP1 total price will be inclusive of insurance cost?	The bid price shall be inclusive of the Insurance Cost. L2SP1 shall bear the cost of insurance.
12.	Kindly provide the spare parts catalogue of each and every spare parts to be required for effective performance of the project	Technical specifications and brochures of the equipments are available in soft form with PMA, which can be collected during office hours
13.	Kindly clarify what kind of operational tools and operational materials required to be import by the L2SP1?	The Bidder requires his own technical experience to analyze and get acquainted with all the requirements for operating Metro Train on Orange Line. All supporting information has already been provided with the Tender.
14.	Kindly provide the initial list of inventory to be provided by the Authority.	The initial list of spare parts in the inventory will be available to the Service Provider in line with Clause 11.1.1 and 11.1.2 of Section 3 "Draft Agreement and Terms of Reference" of RFP under Schedule A
15.	Performance security clause 22.1.5 of Instructions to the Bidders: What will be the annual contract value for submission of performance security for first five years? Bid price divided by 11 years to calculate the annual contract value or adjusted bid price after making annual adjustment to current price?	Please refer to revised Financial Proposal Submission Forms
16.	10.2 of Draft Agreement and format of Performance security: As both the clauses are contradictory kindly clarify when performance security will be submitted by the service provide before signing of the Agreement or after signing of the Agreement?	Performance Security shall be submitted before the signing of the Contract/Agreement. Also see response at Sr. No. A (5) above.
17.	Clause 22.4: Firstly kindly define the work order. Secondly it is written in work order	A Work-order is a signed permission letter from the Employer to the Service Provider to procure equipments / spare parts, which in turn permits the Employer to bill the Employer and be paid the amount that is

		stipulated in the Work-order.
18.	<p>clause that "The Employer shall make payment of work orders upon submission of invoice by the L2SP1 in line with Clause 12.2" so kindly clarify how the procurement of other/routine spare parts will be made, what will be the procedure for issuance of work orders for such spare parts and how the payment against such spare parts will be made to L2SP1.</p>	See response at Sr. No B(6)
19.	<p>Clause 57.6 of Annex A 1.2</p> <p>"L2SP1 shall provide fuel for generators and locomotives on as and when basis to keep them functional for use during/under emergency situations". Kindly define the term "emergency situation" for calculation of quantity of fuel.</p>	Emergency situation is a period during operation hours (or otherwise) when main supply of power is cut-off. As per design, OLMRTS is equipped with two High Voltage Substations (HVS) each to be served with proposed supply from 4 separate power grids of Lahore. Power available in one grid is deemed sufficient for complete train operations.
<b>B</b>	<b>CRCC</b>	
1.	<p>Please refer to clause 6.1.3 of page 10 in the RFP document. It is mentioned: "A bidder is generally eligible who has been registered for at least 6 years in country of origin ( In case of JV, applicable to any one member). " So what does applicable to any one member mean? Does that mean it is applicable to all members in the JV or one member only in the JV? Please clarify.</p>	It means that at least one member of the JV must be registered for six years in the country of origin.
2.	<p>The experience required for the bidder in the RFP is applicable to all members of the JV or one member of the JV? For example, Party A meets all experience requirement alone, Party B has no experience at all. But the combined experience of Party A and Party B meet the requirement. Is the Joint Venture of Party A and Party B technically eligible?</p>	Please refer to the answer of the question at Serial No B(3)
3.	<p>Is the bidder allowed to use the experience of its nominated subcontractor?</p>	No. 

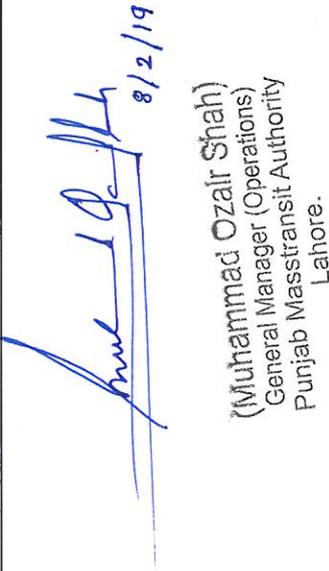
4.	Is the bidder allowed to use the experience of its parent company or holding company?	Yes but only if the parent company or holding company and the bidder have formed a JV. However, a JV partner in one bid is not allowed to be a JV partner in another bid.
5.	Please refer to C. of 8. Joint Venture on page 11 of the RFP : "There must be at least one locally registered company (Partner) of good repute, with relevant experience and proven track record, in the joint venture that must be the lead partner". Does that mean there must be a local company in the JV and the local company shall be the lead partner therein?	The JV required one locally registered company to be the Lead Member. Locally registered means, registered with Security Exchange Commission of Pakistan.
6.	Due to the upcoming Chinese New Year, the preparation time for the bid is far from enough. Please extend the bid submission date	The bid-submission date is hereby extended till <b>March 20, 2019</b>
<b>D</b>		
1.	Would this tender be agreement between L2SP1 and PMA and there would be separate tenders/contracts between PMA and SP2, SP3 & SP4?	That is Correct.
2.	What are the Pre-qualification criteria for SP2, SP3 & SP4?	This criteria will be advertised in separate tender documents in next few weeks.
3.	Please elaborate clause 8(c) since no local company has the relevant experience?	Please refer to the answer of question at Serial No B(4).
4.	Clause no. 15 referred to in clause 6.1.1 is blank. Please explain?	This only pertains to the arrangement of document.
5.	Why there is need of L2SP1 to take Marine Insurance?	Marine Insurance may be required to import tools, consumables and spare parts.
6.	Why only 12% of total contract value calculated for 5 years is given as advance payment? and not complete 11 years	The advance payment is only meant to facilitate the Service Provider for a period of up to estimated 7.2 months which includes the mobilization period, the first month after commencement and a short time for realizing payments against the first invoice.
7.	Does L2SP1 needs to maintain Spares/Inventory of installed equipment or this responsibility rests with PMA?	Please see Clauses 11.1.1 and 11.1.2. of Section 3 "Draft Agreement and Terms of Reference" of RFP The responsibility to maintain Spares/Inventory of installed equipment shall rests with L2SP1

8.	Regarding technical evaluation criteria, if a company has experience of operations/maintenance of two metros, would it be given any points or it would be disqualified? Since minimum required metros number is three.	The Bidder must be technically eligible first before technical evaluation. The technical eligibility criteria requires a collective experience of at least 03 Metro Lines along with other requirements, non-compliance to which shall result in rejection of the bid.
9.	Since time given to prepare for this tender (having such huge) scope is too short, is time extension possible?	The bid-submission date is hereby extended till <b>March 20, 2019</b> .
10.	What are the warranties of equipment that are in the scope of L2SP1?	Warranties of any equipment or spares procured by L2SP1 shall rest with L2SP1
<b>E</b>	<b>M/s Daewoo Express Pakistan</b>	
1.	Proposed 87 % unaudited payment within 05 x working days of submission of Invoice	Proposal is rejected. 75% payment
2.	Reimbursement of Allied charges. 7-60 days Should be directly paid by PMA or to be paid by PMA within 07 x working days.	Proposal is denied.
2.	Proposed	Proposal is denied.
3.	Assignment of Receivables' should be added in the RFP. Passengers Insurance – Rs 250 million per occurrence.	Insurance against third party liability shall be in the amount of PKR 250 Million per occurrence with number of occurrences unlimited
4.	What about insurance of Rolling stock ?	Insurance of all E&M Equipment is required to be arranged by L2SP1 under Clause 29. The rolling stock is part of the E&M Equipment.
5.	Extend bid submission by 06 x weeks Proposed. Due to Chinese new year holidays. Additionally, require time to shortlist local firms	The bid-submission date is hereby extended till <b>March 20, 2019</b> .
6.	Proposed Licensed software' condition should be abolished.	Proposal is denied.
7.	How to calculate the consumables , frequency and their rate	The responsibility of estimation of consumables rests with L2SP1.
8.	TECH- 7C &7D. Details of staff proposed for key and non key positions. Not possible to give details of the persons in such short time.	Disagreed 

9.	Issue / Complaint software to be made by Service Provider.	The Issue Tracking Management Information System shall be arranged by L2SP1. See Clause 54.4 (8)
10.	O & M manuals to be provided in English.	Reference to O&M Manual is deleted in clause 54.4 (9 & 17)
11.	RFP 10.20. No advertisement revenue for L2SP1 ?	Correct.
12.	What about if somebody jumps in front of train.	All accidents shall be documented and addressed through investigation reports to be furnished by L2SP1.
13.	Scope of Services. Systems Under Procurement Group No. 1- Service Category 1 Para 29) Dedicate and maintain no more than 3 trains as reserve fleet for maintenance at any time of operation	Correct
<b>F</b>	<b>General Discussion</b>	
1.	What will be the station equipment's handing over procedure to successful bidders.	Please refer to Clause 11.1.2 of Section 3 "Draft Agreement and Terms of Reference" of RFP
2.	Payments will be in Pak rupees or in Us dollar currency?	All payments by the Employer under this Contract shall be made in PKR
3.	Need to change CPI" N" value from 20 to 11	Clause 38 has been revised.
4.	Major components of Locomotives need to be purchased after 5 years so there should be no cap for US dollar rates?	Proposal is denied.
5.	Is handing over report of station or equipment's part of contract? It is necessary to provide specification list along with handing over report to successful bidders.	Please see Clauses 11.1.1 and 11.1.2. of Section 3 "Draft Agreement and Terms of Reference" of RFP. Also, Clause 2 of the Agreement is revised to include Schedule A.
6.	Is it possible to extend the submission date of PG from 10 to 30 days?	The time to submit the performance guarantee shall be 21 working days after the date of issuance Letter of Award (see revised Clause 10.2 of Section 3 "Draft Agreement and Terms of Reference" of RFP)
7.	What is meant by Local registered company/ firm in RFP?	It means registered with Securities and Exchange Commission of Pakistan (SECP)
8.	Can lead partner change JV partners during execution of contract?	Lead Partner shall not replace a JV partner without written consent of the Employer and only after establishing a sound reason for the change.
9.	Word "Work Order" need to explain more elaborately in RFP .	See response at Sr. No. C(17).
10.	Need to provide operational manuals of installed equipment's	Please see answer to the question at Serial E(10)
11.	Clause 17 of RFP need to be revised	Clause 17 is marked Intentionally Left Blank 

12.	Define public and nonpublic area of Orange Line metro train Project.	Those areas at stations that are to be used by passengers are public areas. Rest of the areas in the corridor are non-public areas.
14.	It is necessary to hold another Pre bid meeting before submission of bids	Proposal denied.


  
**MUHAMMAD OZAIR SHAH**  
 General Manager (Operations)  
 Punjab Mass Transit Authority  
 Lahore.


  
 8/2/19  
**(Muhammad Ozair Shah)**  
 General Manager (Operations)  
 Punjab Mass Transit Authority  
 Lahore.

## PRE BID MEETING ATTENDANCE

OPERATION &amp; MAINTENANCE SERVICES FOR METRO RAIL TRANSIT SYSTEM ON THE ORANGE LINE IN LAHORE (FROM ALI TOWN TO DERA GUJRAN)

## BIDDERS ATTENDANCE SHEET

Place:

Committee Room, PMA Office, 5th floor,  
Arfa Software Technology Park, Lhr

Date:

30/01/2019

Time

11:00 AM

Sr. No.	Name of Organization	Name of JV Partner (if any)	Representative's Name & Designation	Contact No.	Email Address	Signature
1	China Railway Construction (Int'l) Company	~	Wang Lei M.P., Pakistan Office	03111028888	wang lei @concept.com	
2	C RCC 16		Tian Wuyi Managing Director	0310078889	CRC16Pakistan mail.com	
3	SINACO		Imran Masood	0321-4428722	imranmasood@huband.com	
4	LMKT PUT LTD		ALI HASAN	03368567122	alhasan@ lmkt.com	
5	LMKT Put Ltd.		Nasir Tanveer	0336-8567157	ntanveer @LMKT.com	
6	DAEWOO PAKISTAN EXPRESS BUS SERVICE	-	FARSAH SIDDIQUI (CEO)	0336-4224400	farsahsiddiqui@ daewooexpress.com	
7	NORINCO hotel.		Duan Jinyang	03116337535	djt @norinc-intl.com	
8			Guo Kaiyong	03105017888	43652476@qq.com	
9	Plaza Inn Tang		Asif Nain	03043707052		

## PRE BID MEETING ATTENDANCE

OPERATION & MAINTENANCE SERVICES FOR METRO RAIL TRANSIT SYSTEM ON THE ORANGE LINE IN LAHORE (FROM ALI TOWN TO DERA GUJRAN)

### BIDDERS ATTENDANCE SHEET

Place: Committee Room, PMA Office, 5th floor, Arfa Software Technology Park, Lhr Date: 30/01/2019 Time: 11:00 AM

Sr. No.	Name of Organization	Name of JV Partner (if any)	Representative's Name & Designation	Contact No.	Email Address	Signature
10	Platform Tubism		Bilal Hayat	0321-3919300	bilal.hayat@platformtubism.com	
11	Crimson Engineering		(Crimson Engineer) Abdul Samad Executive Director/Civil	03064289982	engr.samad@yahoo.com	
12	Crimson Engineers		Ahsan Mahmood	0300-4141691	mianahsan8@btmail.com	
13	Crimson Engineering	-	Rana Abrar Anwar Locomotive and Rolling Stock Specialist	0321 1141051	ranab@crimson.com	
14	CRCC	-	Maryam Tariq Business Development exe	0331-4488688	Maryam.Crcc@hotmail.com	
15	CRCC 16	-	Khadifa Zeeshan Marketing Exec	0332-8605040	Khadijatarig141@outlook.com	
16	Daewoo Pakistan	-	ABSAR AHMAD (Tech Team)	0300-6286768	absar.bahmad@daewoo.com.pk	
17	ERVINOX (PVT) LTD		JAWAD SALEEM CEO	0803-4444560	jawad.saleem@panasiengroup.com	
18	Daewoo Pakistan		AHISAN FAYAZ (GM - Operation)	0334-8080185	ahsan.fayaz@daewoo.com.pk	

**PRE BID MEETING ATTENDANCE**

OPERATION & MAINTENANCE SERVICES FOR METRO RAIL TRANSIT SYSTEM ON THE ORANGE LINE IN LAHORE (FROM ALI TOWN TO DERA GUJRAN)

**BIDDERS ATTENDANCE SHEET**

Place: Committee Room, PMA Office 5th floor,  
Arfa Software Technology Park, I-8

Date: 30/01/2019

Time 11:00 AM

Sr. No.	Name of Organization	Name of JV Partner (if any)	Representative's Name & Designation	Contact No.	Email Address	Signature
19	Perkembangan Engineers		Awain Schail	0321-5376486	awain.pge@ gmail.com	
20	Equinox Pvt Ltd		Muneeb Malik	0300-8250027	muneeb.malik @parosisingroup.com	
21	Law & PA Dep		Fareeha Rizque	0333-4282 425	fareeha hotmail.com	
22	Dalwar		Manika Raz	0300 4736652	manika.raz @dalwar.com.pk	
23	First Bus UK		Jamil Ahmad	0300 8482436	abs.lahore @yqaw.com	
24	FIRST BUS		HAMZA KIRMANJI	0321-4768664	Hamza.Kir mani@hmail .com	
25	Playground Turning		Yazan Arslan	0324.3707031	yazan.a@ albayrak.com.tr	
26	CR-NORINCO		Zu	0217170118	munerzhan@7@ 163.com	
27	CR-NORINCO		Tomy	03158676359	429146466@ qq.com	

## SECTION 1: INVITATION TO THE BID

Punjab Masstransit Authority, Government of the Punjab (GoPb) invites bids for the "Operation and Maintenance of Services for Metro Rail Transit System on the Orange Line in Lahore (From Ali Town to Dera Gujran)". Registered companies and Joint Ventures complying with criteria given in this document, are eligible for this tender, hereafter referred to as Bidders.

- This Request for Proposal ('RFP') does not constitute a binding agreement or an offer or invitation by the Punjab Masstransit Authority (PMA) to any party other than the qualified Bidders to submit the Bids. The principle purpose of this RFP is to provide the Bidders with information that shall form the basis of their proposals or bids. This RFP contains the minimum requirements and information desired by the Authority. The contents hereof may be supplemented by the Authority as it deems appropriate. Each Bidder may conduct its own investigations and analysis and check the accuracy, reliability and completeness of the information given in this RFP to its satisfaction. The Authority makes no representation or warranty and shall incur no liability under any law, rules or regulations as to the accuracy, reliability or completeness of the RFP. The Authority may, at its sole discretion but without being under any obligation to do so, update, improve or supplement the information in this RFP.
- Bidders must ensure that they submit all the required documents indicated in the Bidding Documents without fail. Bids received without valid documentary evidence, supporting documents and various requirements mentioned in the Bidding Documents are liable to be rejected at the initial stage. The data sheets, valid documentary evidences for the critical components as detailed hereinafter should be submitted by the Bidder for scrutiny. It is intimated that no objection/revision/supplement shall be entertained regarding the terms and conditions of the Bidding Documents submitted by the Bidder. Alternative bids will not be considered. The attention of bidders is drawn to the provisions of clause 10 of this document "Bidder's Eligibility and Bid Responsiveness" regarding the rejection of Bids which are not substantially responsive to the requirements of the Bidding Document.
- Potential bidders who are interested in obtaining the RFP package must visit the website of the Punjab Masstransit Authority (PMA) [www.pma.punjab.gov.pk](http://www.pma.punjab.gov.pk) or the Punjab Procurement Regulatory Authority (PPRA) [www.ppra.punjab.gov.pk](http://www.ppra.punjab.gov.pk) and download the RFP Document and visit the same for all updates on this RFP such as addendums etc. . Simultaneously, representatives of the bidders **must should** obtain ~~discs (USBs) from the Office of the Employer during office hours (i.e. 9 a.m. to 5:30 p.m. Pakistan Standard Time), containing critical information including annexure/attachments to the RFP.~~ The data ~~contains~~ **in soft form containing** Concept Design, Technical Specification, Drawings, Maintenance Manuals and Product Brochures which could not be uploaded on the aforesaid websites due to size limitations. The data forms an integral part of the RFP and it would not be possible for bidders ~~to be eligible for the Tender and~~ to prepare bids without carefully reviewing its contents. ~~The USB will be available against deposit of PKR 7000/- in the Account NO. 6010045522200017 at any branch of Bank of Punjab.~~

This Bidding Process will be governed under Punjab Procurement Rules, 2014, as amended from time to time. In this document, unless otherwise mentioned to the contrary, "Rule" means a Rule under the Punjab Procurement Rules 2014. As per Rule 12, 12(1), and 12 (3) this Tender is being placed online at PPRA's website, as well as being advertised in print media. As per Rule 38(2),

- **Single Stage - Two Envelope Procedure** shall be followed. As authority competent to accept the tender, Client reserves the right to cancel the tender, or reject all bids prior to acceptance of bid as per PPRA Rule 35
- Queries of the Bidders (if any) for seeking clarifications must be received in writing at the office of Punjab Masstransit Authority, 5th Floor, Arfa Software Technology Park (ASTP), Lahore, PAKISTAN or emailed to the specified address on or before **January 29, 2019**. All queries shall be responded to within due time. The Punjab Masstransit Authority shall hold a pre-bid meeting at 1100 hours on **January 30, 2019**; at the Committee Room, Punjab Masstransit Authority, 5th Floor, Arfa Software Technology Park (ASTP), Lahore, PAKISTAN. The minutes of pre-bid meeting and addendums if any will be treated as part of this RFP.
- All bids must be accompanied by a Demand Draft / Pay Order/ Bank Guarantee of **PKR Twenty (20) Million as bid security in favor of “ The Punjab Masstransit Authority”** issued by a scheduled bank allowed carrying financial transactions in PAKISTAN. **Clause 13** gives details on Tender Security.
- Complete bids along with the Demand Draft / Pay Order/ Bank Guarantee, Tender Forms, Affidavits, etc., must be dropped in Tender Box placed at the Office of the Punjab Masstransit Authority, 5th Floor, Arfa Software Technology Park (ASTP), Lahore, PAKISTAN, on or before **1100 hours on March 20, 2019**. The bids received late due to any reason whatsoever shall not be entertained. The Technical bids will be publicly opened in the Committee Room of the Punjab Masstransit Authority, 5th Floor, Arfa Software Technology Park (ASTP), at **1130 hours on March 20, 2019**.
- Bidders are also required to state, in their proposals, the name, title, fax number and e-mail address of the bidder’s authorized representative through whom all communications shall be directed until the process has been completed or terminated. Client will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.
- The Bidder is advised to obtain for himself, at his own cost and responsibility, all information that may be necessary for preparing the Bid and entering into a Contract for execution of the Works/facility. This shall include but not be limited to the following:
  - relevant laws, rules, and regulations of Pakistan including Income Tax and Sales Tax laws/rules
  - customs duties and other import taxes applicable in Pakistan
  - information regarding port clearance facilities, loading and unloading facilities, storage facilities, transportation facilities and congestion at Pakistan seaports.
  - investigations regarding transport conditions and the probable conditions which will exist at the time the Equipment will be actually transported.
- The contact detail for all correspondence in relation to this bid is as follows:  
**Email:** [rizwan.aziz@pma.punjab.gov.pk](mailto:rizwan.aziz@pma.punjab.gov.pk)  
**Punjab Masstransit Authority**  
 5th Floor, Arfa Software Technology Park (ASTP),  
 Lahore, PAKISTAN

## SECTION 2: INSTRUCTIONS TO THE BIDDERS

### 1. Definitions

- 1.1. **“PMA”** is a Punjab Masstransit Authority, established by the Government of Punjab.
- 1.2. **“Successful Bidder”**: The one technically qualified bidder with lowest financial bid, who has the probability of award of contract subject to necessary approvals and applicable policies.
- 1.3. **“Registered Company”** means a company duly registered under Companies Ordinance 1984 with Security and Exchange Commission of Pakistan
- 1.4. **“Bidder”** means a registered company or joint venture that has submitted its bid as per the criteria/specifications listed.
- 1.5. **“Services”** means the tasks to be performed pursuant to the Contract.
- 1.6. **“Confirmation”** means confirmation in writing.
- 1.7. **“Pre-Bid Conference”** means the meeting conducted by the procuring entity on given date and time prior to actual date of bid opening.
- 1.8. **“Procurement Methods”** means any one of the procurement modes / methods as provided in the Punjab Procurement Rules 2014 published by the Punjab Procurement Regulatory Authority (PPRA), Government of Punjab, as amended from time to time.
- 1.9. **“RFP”** means Request for Proposals, including any amendments that may be made by the procuring entity for the selection of bidder.
- 1.10. **“Proposal”** means the Technical Proposal and the Financial Proposal for the provision of the Services submitted by a bidder in response to RFP.
- 1.11. **“SBD”** means Standard Bidding Documents.
- 1.12. **“SCC”** means the Special Conditions of Contract.
- 1.13. **“TEC”** means the Technical Evaluation Committee, constituted for the purpose of evaluating the Proposals received.
- 1.14. **“Client / Employer”** means Punjab Masstransit Authority.

- 6.1.3. has been registered for at least 6 years in country of origin (In case of JV, Applicable to any one member)
- 6.1.4. Has valid Registration Certificate for Income Tax or possesses corresponding equivalent certificate from the country of origin. (In case of JV, Applicable to all members)
- 6.1.5. Has submitted Income Tax Returns for the last three tax years or possesses corresponding equivalent documents from the country of origin (In case of JV, applicable to any one member).
- 6.1.6. Bidder has not acquired the complete RFP document in USB after depositing of PKR 7000/- in the specified account.
- 6.1.7. In case of a local company forming part of the joint venture, must be registered under Companies Ordinance 1984 with Security and Exchange Commission of Pakistan.

6.2. **Technical Eligibility**

A bidder is technically eligible who meets or exceeds the experience requirements mentioned in the table below. JV shall be considered as one entity in which combined experience of all members shall be considered i.e. number of years of experience of each member in a particular category shall be added to arrive at total number of years of experience in that category for deciding technical eligibility. It is further clarified that in case of JV, for categories at Serial No 1,2 & 3 experience of 03 years in a particular Metro Line must pertain to single member only, however the number of Metro Lines will be considered collectively

Sr. No	CATEGORY	EXPERIENCE REQUIRED
1	Operations of Trains	Experience in operations of three (03) Metro Lines (Any Type from 1 to 4) operated by the Bidder. Bidder must have an operational experience of 03 years in each Metro Line. Train Operations must be through centralized dispatching and supervision through Command and Control Centre under Main Line Signaling System consisting of Automatic Train Control System (ATC)
2	Maintenance of Rolling stock	Experience in maintenance of Rolling Stock of three (03) Metro Lines (Any Type from 1 to 4). Bidder must have an experience of 03 years of maintenance of entire Rolling Stock in each Metro Line.
3	Maintenance of Track	Experience in maintenance of Track of three (03) Metro Lines (Any Type from 1 to 4). Bidder must have an experience of 03 years of maintenance of entire Track in each Metro Line.
4	Operations and maintenance of Power Supply System	5 years of experience in High Voltage Substations (HVSS) and Third Rail Traction Supply System. 2 years of experience in Power SCADA and Low Voltage Power Supply & Illuminations.

5	Operations and maintenance of Signaling System and Communication system	5 years of experience in ATC based Train Signaling System. 2 years of experience in Radio Based Communication System, Public Wireless System, Fiber Optic System, Fire Alarm System, Building Automation System, Clock System, Passenger Information System & Public Address System, CCTV Surveillance, Visual Control Panels for Train Operations, Access Control System, Telephone System, Audio Video Recording System
6	Operations and maintenance of various other systems	2 years of experience in Fire Fighting System, HVAC System, Escalators, Elevators, Platform Screen Doors / Automatic Passenger Gates, Water Supply, Sanitation & Sewerage System

**7. Tender Cost**

The Bidder shall bear all costs / expenses associated with the preparation and submission of the Tender(s) and the Client shall in no case be responsible / liable for those costs / expenses.

**8. Joint Venture**

Joint ventures are eligible for this tender, as long as the joint venture complies with the following conditions:

- a. The Bidders may form a joint venture. An Agreement Deed legally executed to that effect, or a Memorandum of Understanding (MOU), signed by all the partners shall be submitted with the Tender.
- b. One partner will be designated the lead partner and would enter into legal contract with Client and would be liable to incur liabilities, receive payments and receive instructions for and on behalf of any or all partners. A power of attorney to that effect, legally executed, signed by all the partners shall be submitted with the Tender.
- c. There must be at least one locally registered company (Partner) of good repute, with relevant experience and proven track record, in the joint venture that must be the lead partner.
- d. The Lead Partner in case of joint venture shall not be allowed to assign the contract or any part thereof to another party, without permission of the Client.
- e. All the partners shall be jointly and severally liable for the execution of the Contract in

- 11.5.1. FORM TECH-6 Details of experience in various other disciplines.
- 11.5.2. FORM TECH-7A Summary of total staff planned for the Project.
- 11.5.3. FORM TECH-7B Number of staff planned for key & ~~non-~~ other than key positions.
- 11.5.4. FORM TECH-7C Details of staff proposed for key positions.
- 11.5.5. FORM TECH-7D Details of staff proposed for ~~non-~~ other than key positions.
- 11.5.6. FORM TECH-7E Short curriculum vitae (CV) of staff proposed for key positions
- 11.5.7. FORM TECH-8 Financial strength
- 11.5.8. FORM TECH-9 Power of Attorney
- 11.5.9. FORM TECH-10 Undertaking
- 11.5.10. FORM TECH-11 Affidavit - Integrity Pact
- 11.6. The Financial Proposal shall comprise the following:
  - 11.6.1. FORM FIN-1 Financial Proposal Submission Form.
  - 11.6.2. FORM FIN-2 Price Summary for entire Contract Period.
  - 11.6.3. FORM FIN-3 Breakdown of Remuneration.
  - 11.6.4. FORM FIN-4 Breakdown of Direct (Non-Salary) Expenses.
- 11.7. The Bidder shall follow the instructions laid down as under:
  - 11.7.1. The Bidder shall seal the Original Technical Proposal in an envelope duly marked as under:

Envelope No. 1A: Original Technical Proposal for  
Tender Name. [Name of Tender]  
[Name of the Client]  
[Address of the Client]  
[Name of the Bidder]  
[Address of the Bidder]  
[Phone No. of the Bidder]
  - 11.7.2. The Bidder shall seal the Duplicate Technical Tender in an envelope duly marked as under:

Envelope No. – 1B: Duplicate Technical Proposal for  
Tender Name. [Name of Tender]  
[Name of the Client]  
[Address of the Client]  
[Name of the Bidder]  
[Address of the Bidder]  
[Phone No. of the Bidder]

- 20.2.10. the Bidder engages in corrupt or fraudulent practices in competing for the Contract award.
- 20.2.11. there is any discrepancy between bidding documents and bidder's proposal i.e. any non-conformity or inconsistency or informality or irregularity in the submitted bid.
- 20.2.12. the Bidder submits any financial conditions as part of its bid which are not in conformity with tender document.

## **21. Acceptance Letter (Letter of Intent)**

The Client shall, send the Acceptance Letter (Letter of Intent) to the successful Bidder, prior to the expiry of the validity period of the Tender, which shall be made part of the formal contract.

## **22. Performance Security**

- 22.1. The successful Bidder shall furnish Performance Security as under:
  - 22.1.1. within ~~ten (10)~~ 21 working days of the receipt of the Acceptance Letter from the Client;
  - 22.1.2. in the form of a Bank Guarantee, issued by a scheduled bank operating in Pakistan, as per the format provided in the Tender Document or in another form acceptable to the Client;
  - 22.1.3. denominated in Pak Rupees;
  - 22.1.4. Have a minimum validity period of one year from the date of Award Notification or until the date of expiry of yearly support period.
  - 22.1.5. The successful Bidder shall submit a Bank Guarantee of 10% of the annual contract value for a period of 11 years, on a yearly basis, with an undertaking to renew the Bank Guarantee before the end of each year on yearly basis, one month before the expiry period of the submitted bank guarantee.
  - 22.1.6. The proceeds of the Performance Security shall be payable to the Client, on occurrence of any / all of the following conditions:
    - 22.1.6.1. If the Service Provider commits a default under the Contract;
    - 22.1.6.2. If the Service Provider fails to submit the bank guarantee for the next year one month before the expiry of already submitted bank guarantee in stipulated timeframe.
    - 22.1.6.3. If the Service Provider fails to fulfill any of the obligations under the Contract
    - 22.1.6.4. If the Service Provider violates any of the terms and conditions of the Contract.

**22.2.** The Service Provider shall cause the validity period of the performance security to be extended for such period(s) as the contract performance may be extended. ~~The Performance Security shall be returned to the Bidder within thirty working days after the expiry of its validity on written request from the Service Provider.~~

### **23. Redressing of Grievances by the Client**

- 23.1. The Client shall constitute a committee comprising of odd number of persons, with proper powers and authorizations, to address the complaints of bidders that may occur prior to the entry into force of the procurement contract.
- 23.2. Any bidder feeling aggrieved by any act of the Client after the submission of his bid may lodge a written complaint concerning his grievances not later than fifteen days after the announcement of the bid evaluation report.
- 23.3. The committee shall investigate and decide upon the complaint within fifteen days of the receipt of the complaint.  
Mere fact of lodging of a complaint shall not warrant suspension of the procurement process.
- 23.4. Any bidder not satisfied with the decision of the committee of the Client may follow the process mentioned vide Statutes and Regulations.

- (a) terms and conditions of the Contract in lieu of the Services as described in the contract Price Table.
- (b) The Employer has requested the Service Provider to provide certain Services as described in Price Table & Tender Documents; and
- (c) The Service Provider, having represented to the Employer that it has the required professional skills, and personnel and technical resources, has agreed to provide such services on the terms and conditions set forth in this Contract.

NOW this Contract Agreement witnesseth as follows:-

1. In this Contract Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents in the stated priority shall be deemed to form, be read and construed as part of the Contract Documents:-
  - a) The Contract Agreement;
  - b) Preamble to Conditions of the Contract;
  - c) The Conditions of Contract and Annexures (12 documents);
  - d) Schedule A.
  - e) The Service Level Agreement;
  - f) The Request for Proposal documents;
  - g) The Bidders Bid including technical and Financial Bid Documents;
  - h) Preliminary and Detailed Design of the Project;
  - i) BOQs and Specifications of E&M Equipment delivered under the EPC Contract No. PMA-CR-NORINCO-OL between PMA and CR-NORINCO;
  - j) Conditions of Commercial Contract Signed on April 20, 2015 between PMA and CR-NORINCO (Contract No. PMA-CR-NORINCO-OL) including all of its associated documents;
  - k) Any other documents forming part of the Contract.

Explanation: In case of any discrepancy on the same issue between the above

documents, those of a later date shall govern.

NOW THEREFORE, the Parties to this Contract agree as follows:

1. The Employer requires O&M Services from the Service Provider based on output or performance based parameters which are stipulated in the Service Level Agreement (SLA). The input of Employer shall be limited to roles mentioned in the Contract.
2. The Employer hereby covenants to pay to the Service Provider, in consideration of the services provided as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract in consideration of provision of the Services remedying of defects / damage therein.
3. In consideration of the payments to be made by the Employer to the Service Provider, as hereinafter mentioned, the Service Provider hereby covenants with the Employer to provide the O&M Services as laid down in this Contract and to remedy defects /damages therein, at the time and in the manner, in conformity in all respects with the provisions of the Contract.
4. The monthly Contract Price for the Services required shall be in Pakistan Rupees (PKR) ----- [----- only] which includes all applicable taxes but excludes Sales Tax on Services. Breakup of the Contract Price are as follows:-

This Contract shall become effective ~~upon~~ on the date mentioned in issuance of the Letter by the Employer to the Service Provider to commence commercial operation on the Orange Line ~~on date mentioned therein.~~

IN WITNESS WHEREOF the parties hereto have caused this Contract Agreement to be executed on the day, month and year first before written in accordance with laws of Pakistan.

This Contract and all its attachments have been prepared, signed and sealed in six (06) copies as original stamped signature by both parties; all six (06) original copies have the same validity.

**FOR: THE PUNJAB MASSTRANSIT  
 AUTHORITY  
 5th Floor, Arfa Software Technology  
 Park  
 346 - Ferozpur Road,  
 Lahore  
 (THE EMPLOYER)**

**FOR : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 (THE SERVICE PROVIDER)  
 (REPRESENTATIVE OF \_\_\_\_\_)**

**SIGNATURE:\_\_\_\_\_**

**SIGNATURE:\_\_\_\_\_**

<b>Overall Contract Period</b>	Clause 7 The Overall Contract Period shall be the period from the Effective Date of the Contract until the completion of Overall L2MCS.
<b>Duration of the Overall L2MCS</b>	Clause 7.1 Duration of the Overall L2MCS Period is 11 years from Commencement date of Train Operation unless otherwise extended or reduced in accordance with terms and conditions mutually agreed by the Parties.
<b>Ruling Language</b>	Sub-Clause 9.1 The ruling language shall be English.
<b>Day to Day Communications</b>	Sub-Clause 9.2 The language for day to day communication between the L2SP1 and the Employer is English.
<b>Passenger Service Hours</b>	Sub-Clause 9.3. The normal Passenger Service Hours of OLMRTS shall be 16 hours per day. (starting from the first station in both directions) or as changed by the Employer with a 3 days prior notice to the L2SP1 in line with the capacity of the OLMRTS.
<b>Fare Policy</b>	The Employer shall be responsible for setting Fares and establishing policies in relation to Fares, including the tax on fares issues (if any).
<b>Terms of Payment</b>	Clause 12 The terms of payment shall be as stated in <del>Sub-clause 15</del> <u>Clause 12</u> of <u>the</u> Conditions of Contract.
<b>Currency of Payment</b>	Sub-Clause 12.5.1 (c) All payments by the Employer to the L2SP1 shall be made in Pakistan Rupees (PKR) through cheque drawn on Bank of Punjab
<b>Foreign Exchange</b>	Sub-Clause 10.6 (b) The responsibility of foreign exchange and transfer of funds to foreign countries, if any, shall fully rest with the L2SP1.

- 1.4 "Contract Agreement" means the documents recording the Agreement of the Contract for delivery of L2MCS between the Employer and the L2SP1.
- 1.5 "Contract Price" means the sum stated in the Contract Agreement as payable to the L2SP1 for the provision of Services mentioned in the Contract subject to such additions thereto or deductions therefrom as may be made under the provisions hereinafter contained in accordance with the provisions of the Contract.
- 1.6 "Service Provider" (henceforth called Line 2 L2SP1 and abbreviated as L2SP1 ) means the same entity whose tender for Overall Services has been accepted by the Employer and the legal successors in title to the L2SP1 for L2MCS of the Orange Line but does not (except with the consent of the Employer) include any assignee of the L2SP1.
- 1.7 "Employer" means Punjab Masstransit Authority (PMA) and the legal successors in title to the Employer including any assignee and representative of the Employer.
- 1.8 "Equipment" means machinery, apparatus, materials and all things procured, furnished, installed and commissioned under the EPC Contract (No. PMA-CR-NORINCO-OL) for Orange Line System. The word 'Goods' is synonymous with the word "Equipment".
- 1.9 "Overall Services" means Services as defined in the Preamble to be rendered such that all provisioned systems are fully functional, and that they operate in a reliable manner in line with their intended use i.e. for the transportation of passengers, as and when required. However, Services shall not mean works such as maintenance of E&M Equipment other than Tracks and Rolling Stock, commercial development and loss/profit emerging from the operation of the Corridor. Services shall also not mean any works outside the context of Scope of Work mentioned in Annexures A-1, A-1.1...A-1.5, A-2, A-3 and A-4.
- 1.10 "Force Majeure" has the meaning assigned to it under Clause 30.
- 1.11 "Performance Security" means a guarantee issued by a scheduled Pakistani bank submitted by the L2SP1 as per Sub-Clause 10.2 against payments to be made by the Employer for delivery of L2MCS under Sub-Clause 12 The Performance Security shall be renewed annually such that it stands valid throughout the duration of the Contract.
- 1.12 "Subcontractor" means any person (other than the L2SP1) named in the Contract for any part of the Services, or any person to whom any part of the Operation Services has been subcontracted with the consent of the Employer, and the Subcontractor's legal successors in title but does not include any assignee of the Subcontractor.
- 1.13 "Corridor/Systems" means the place or places, provided or made available by the Employer where L2MCS are to be done by the L2SP1. The Corridor includes all premises located on the Depot with exception of PMA Offices, the entire length of track inside the depot, entire track length from Dera Gujran to Ali Town, the entire track inside the Stabling Yard, all OLMRTS stations and allied facilities including rolling stocks, the high voltage substations (HVS) upto the point of and including LESCO meters, temporary LESCO connections upto the point of and including LESCO meters and all premises inside the Stabling Yard.
- 1.14 "Handing-Over documents" means the documents signed by both Parties by means of which the Corridor is to be given by the Employer to the L2SP1 in accordance with Sub-Clause 11.1.2.
- 1.15 "Month" means calendar month according to Gregorian calendar.
- 1.16 "EPC Contract" means the Contract already signed and executed between PMA and CR-NORINCO titled Engineering, Procurement and Construction of Metro Rail Transit System on the Orange Line (from Ali Town to Dera Gujran).
- 1.17 "Project" means the Metro Rail transit System on the Orange Line (from Ali Town to Dera Gujran) henceforth referred as OLMRTS.

particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the Employer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract, the same shall be referred to the decision of the Employer whose award shall be final.

## **9. CONTRACT LANGUAGE**

### **9.1. Ruling Language**

Where versions of the Contract are prepared in different languages, the version which is to prevail is specified in the Preamble. The language of such version is referred to as the ruling language.

### **9.2. Day to Day Communications**

The language for day to day communications is stated in the Preamble.

### **9.3. Passenger Service Hours**

The Service Hours shall be as stated in the Preamble.

### **9.4. Documents Mutually Explanatory**

Subject to Contract Agreement, the Contract documents shall be taken as mutually explanatory.

### **9.5. L2SP1's Use of Employer's Document**

The Employer's documents and other information provided by the Employer to the L2SP1 shall remain the property of the Employer. These shall not, without the consent of the Employer, be used, copied or communicated to a third party by the L2SP1 unless necessary, solely for the purposes of the Contract.

### **9.6. Errors by Employer**

Except for the documents furnished under the EPC Contract, the Employer shall be responsible for the Employer's documents and for any other written information supplied by the Employer. If such Employer's documents, information or details are incorrect and so crucial that they result in inadequate delivery of L2MCS, the Employer shall not penalize the L2SP1 or hold the Service Provider responsible for any losses arising from such errors.

## **10. OBLIGATIONS OF THE L2SP1**

### **10.1. General Obligations**

The L2SP1 shall commence the L2MCS on the date specified in the Preamble to Conditions of Contract and shall proceed with the same expeditiously and without delay. The Scopes of Services of the Service Provider are detailed in Annexure A-1, A-1.1...A-1.5, A-2, A-3 and A-4.

The time period available between the ~~Effective Date of this Contract Agreement~~ **date of issuance of the Letter of Award** and commencement date, i.e. the Mobilization Period, shall be effectively used by the L2SP1 to recruit necessary human resource to meet the delivery of Scope of Services of L2MCS and to generally store adequate quantities of operation materials i.e. consumables, spare parts, maintenance equipment, repair tools etc. for ensuring delivery of uninterrupted L2MCS.

## **10.2. Performance Security**

The L2SP1 shall provide a Performance Security under the Contract in the prescribed Form. The said Security shall be furnished by the L2SP1 within ~~fifteen (15) days after the signing of the Contract Agreement for delivery of L2MCS~~ **twenty one (21) working days from the issuance of the Letter of Award from the Employer.**

The required performance security shall be renewed annually and kept valid for twenty-eight (28) days beyond the L2MCS Contract Period under intimation to the Employer. The cost of complying with the requirements of this Sub-Clause shall be borne by the L2SP1. The L2SP1 shall ensure such performance security is renewed one month before its expiry such that there is no time during contract duration in which the L2SP1 has no cover of the performance security. No payment shall be made to the L2SP1 for duration during which the performance security is invalid/ineffective.

Provided that in case of any variation in the Contract Price, the L2SP1 shall ensure that performance security amount is adjusted such that it meets the requirement for threshold under this Sub-clause.

## **10.3. Period of Validity**

Unless otherwise the Contract stands extended subject to mutual agreement of both parties, no claim shall be made against the Performance Security after the conclusion of the Operation Period and the Performance Security shall be returned to the L2SP1 within fourteen (14) days of the issuance of the full Hand Back Certificate.

## **10.4. Claims under Performance Security**

Whether or not the Performance Security is stated by its terms to be payable upon the demand of the Employer, a claim shall not be made under the Performance Security unless one of the following conditions is satisfied:

- a) The L2SP1 is in breach of the Contract and fails to remedy the breach within thirty (30) days after receiving written notice from the Employer requiring him to do. The notice shall state the intention to claim under the Performance Security, the amount claimed and the breach relied upon, or
- b) the Employer and the L2SP1 have agreed in writing that the amount demanded is payable to the Employer, and the amount has not been paid within thirty (30) days thereafter, or
- c) the Employer has obtained an award in arbitration under Clause 31 and the amount awarded has not been paid within thirty (30) days after the award, or
- d) the L2SP1 has gone into liquidation or has become bankrupt; or
- e) if the L2SP1 terminates the contract for convenience.
- f) if the L2SP1 fails to submit the performance security for the next year, one month before the expiry of already submitted performance security.

The Performance Security shall be binding irrespective of variations and changes in the duration of the Operation Services or extensions in completion time of the undergoing Operation Services, which are granted or agreed upon under the provisions of the Contract.

In every case the Employer shall, when making the claim, send a copy to the L2SP1.

#### **10.5. Corridor Data**

The L2SP1 shall gather data and fully familiarize himself, at his own cost and risk, on climatic, hydrological and general conditions in Lahore and on the Corridor, and for the operation of OLMRTS. The L2SP1 shall satisfy himself regarding any circumstances which may influence or affect his overall O&M scope of work on the Corridor and associated costs, such as the health, hydrological and climatic conditions, or circumstances which may influence L2SP1's risks and contingencies;

During the Operation Period, subject to the notification by Government of Punjab, if any, the Employer will pass on such critical information with respect to health and security to the L2SP1 on as and when basis.

#### **10.6. Sufficiency of Contract Price**

The L2SP1 shall be deemed to have satisfied himself on and taken account of the agreed Contract Price, including the following:

- a) all the conditions and circumstances affecting the Contract Price;
- b) all the economic, financial and legal variables including but not limited to foreign exchange rates, inflation rates, minimum wage rates, customs and tax rates (i.e. **only all taxes exclusive of sales tax on services but inclusive of 7% withholding tax is are** to be borne by the L2SP1) and all related labor and legal obligations.
- c) the possibility of carrying out the Operation Services as described in the Contract;
- d) the general circumstances at the Corridor;
- e) the general labor position at the Corridor; and
- f) any other circumstances/conditions/factors which may influence or affect the agreed Contract Price of Operation Services.

Note: The Employer shall not be responsible for providing information/data regarding any of the above items. The L2SP1 shall not claim any adjustment on account of its inability to account for any factor in the Contract Price.

Note: The L2SP1 however shall be entitled to adjustments, if any, applicable to the Contract Price stipulated in sub Clause 12.2 of this Contract.

#### **10.7. Physical Obstructions and Conditions**

Refer to Clause 25 Risks and Responsibility

#### **10.8. Schedule to be Furnished**

- 10.22.1. The L2SP1 shall provide to the Employer a bank guarantee, at least 7 days prior to the advance payment ~~(i.e. effective date)~~ by the Employer, as notified by the Employer. The advance payment guarantee shall be valid for the period from the ~~effective~~ date of advance payment until 48 months after the commencement date or termination of this Agreement or full recovery of the mobilization advance, whichever occurs earlier.
- 10.22.2. The Advance Payment Guarantee shall be furnished by L2SP1 in the amount ~~of the Advance payment~~ stated in the Preamble to Conditions of Contract under Mobilization Services and Advance Payment. ~~of the L2SP1.~~ The amount within such a Guarantee may be accordingly reduced each month by refunding relevant amount. The whole amount shall be adjusted at the rate of 25% per month during the consecutive months starting with first full service month from the commencement date.
- 10.22.3. The ~~Mobilization Bond~~ Advance Payment Guarantee shall come into full force and effect upon the date when the L2SP1 receives Advance payment, and shall be encashable in accordance with the terms thereof.

10.23 When it is shown through an evidence to the Employer that there are deliberate practices which restrict free competition or which imply abuse of the dominant position which the L2SP1 could have obtained as a result of this contract, or of this Contract in conjunction with other contracts related to the functionality of the Mass Transit System, in such cases, the L2SP1 shall immediately terminate the employment of the person(s) responsible according to evidences, and the consequences, if any, shall be settled between the L2SP1 and the Employer.

## **11. OBLIGATIONS OF THE EMPLOYER**

### **11.1. System Handover**

#### **11.1.1. Initial System Assets**

11.1.1.1. Initial system assets include OLMRTS civil Works, E&M Works, interface Works, listed in the System Handover List, required by the L2SP1 in order to perform the L2MCS or undertake its obligations under this Agreement (to the extent not under the possession and control of the L2SP1), which are to be handed over to the L2SP1 by Employer in accordance with the System Handover Arrangement pursuant to Clause 11.1.2; System Handover Procedure. Such a list shall be determined between both Parties at least two (2) months prior to the Commencement Date.

11.1.1.2. For avoidance of doubt, Initial System Assets shall include the following as a minimum:

- a) All relevant Civil Works constructed under the EPC Contract, including offices for the L2SP1, and depot, stabling yard and stations;
- b) relevant E&M works/equipment furnished, installed and commissioned under the EPC Contract, including all system software and spare parts;
- c) other relevant assets (e.g. furniture).
- d) 1 set of paper version of formal as-built drawings submitted by the EPC Contractor;

prescribed in Concept design document, detailed specifications and/or maintenance manuals.

- k) Verbal or physical ill treatment of passengers;
- l) wrong instructions by any functional management staff;
- m) Not Complying with any or all applicable laws/rules/ regulations of Pakistan;
- n) Improper use or insufficient Personal Protection Equipment;
- o) Inaccurate placement of safety signs and pictograms;
- p) Insufficient inventory of relevant spares for emergent use or normal operation;
- q) Loss of revenues of the OLMRTS.
- r) accidents inside the corridor and consequences thereof;
- s) stoppage/suspension of Operation Work due to physical obstruction cause of which is attributable to the L2SP1.
- t) Disconnection or arrears in utilities and wireless charges.
- u) Replacement of JV partner.

Payments for spare parts arising from all risks other than those identified as the Employer's Risks, L2SP1's Risks and other than those stated in Clause 30(Force Majeure) shall be addressed in a manner and in accordance with Clause 54.4 (12) of the General Clauses in the Scope of Work at Annex A-1.

If it is established that any accident/failure during the delivery of L2MCS is due to an accident/Employer Risk Events/ L2SP1's Risk Events/other than normal use for which the L2SP1 is partially responsible, within 7 days from the occurrence of such incident, the L2SP1 shall furnish to the Employer a written report of the incident establishing its own extent of responsibility and costs recoverable through Insurance claims. Both Parties shall mutually agree to finalize the report/share of responsibilities. Also, the L2SP1 shall file pertinent claim to insurance company and make its best efforts to arrange processing of the claim with the insurance company. The Employer shall make payments to the L2SP1 against responsibilities established to be borne by the Employer after adjusting the recovery from insurance.

#### 25.4. **Liability of the L2SP1 under occurrence of the L2SP1's Risk Events**

Upon occurrence of a risk event, the L2SP1 shall prepare a report to provide details of the nature of the risk event, along with probable causes, clearly establishing the share of responsibility of each party. The Employer shall review and approve such report. In case the report confirms and establishes the risk to be the L2SP1's Risk, the L2SP1 shall:

- a) bear all risk in the System including but limited to Civil Works, Equipment/Materials/Spare Parts at the corridor, any consequential loss, damage and/or destruction thereto or thereof to the Employer.

vii. Special Replacement Clauses (Air)

viii. Institute Theft, Pilferage and Non-delivery Clauses

**29.1.2. General application of insurance**

To the extent of L2MCS, should a loss pertaining to consumables and spare parts be sustained, the L2SP1 shall replace or repair any loss or damage in line with Clause 7.4 of the Scope of Work.

**29.2. L2SP1's Insurance**

The L2SP1 shall arrange insurance of materials for operation, including marine insurance and all-risk-insurance, for its full replacement value while on the Corridor against all loss or damage caused by any of the L2SP1's Risks and/or Employer's Risks, or otherwise.

**29.3. Third Party Liability**

The L2SP1 shall insure against liability to third parties for any death or personal injury and loss of **body part** or damage to any physical property arising out of the performance of the Contract and occurring before the issue of the Handback Certificate.

Such insurance shall be affected before the L2SP1 begins any Train Operation on the Corridor. The amount of insurance against third party liability shall not be less than that stipulated in the Preamble, per occurrence with number of occurrences unlimited

During Passenger Operations, in the event of any accident resulting in death or injury to the passenger **or loss of body part**, the L2SP1 shall pay compensation to legal representatives or to the passengers, as the case may be, under sections 50 and 67 of the Provincial Motor Vehicle Ordinance 1965 or any other applicable law or regulation or any court order.

**29.4. Employees**

The L2SP1 shall insure and maintain insurance against his liability for his employees.

**29.5. General Requirements of Insurance Policies**

The L2SP1 shall:

- a) produce the policies or certificates of any insurance which he is required to effect under the Contract together with receipts for the premiums,
- b) make effective all insurances for which the Employer **are is** responsible with an insurer,
- c) make no material alterations to the terms of any insurance without the agreement between both Parties, and
- d) in all respect comply with any conditions stipulated in the insurance policies which he is required to place under the Contract.

**29.6. Intentionally left blank**

## **29.7 Remedies on the L2SP1's Failure to Insure**

If the L2SP1 fails to produce evidence of insurance cover, the Employer may affect penalty as per SLA at Section 04 i.e. Service Level Agreement.

## **29.8. Amounts not Recovered**

Any amounts not recovered from the insurers shall be borne by the Employer or L2SP1 in accordance with their responsibilities under Clause 25.

## **29.9. Validity of Insurance**

All the policies of Insurance of the Equipment must provide for payment of indemnity to be made in such amounts which will allow making good of loss of or damage to the whole or any part of the OLMRTS.

## **29.10. L2SP1 to Notify**

It shall be the responsibility of the L2SP1 to notify the insurance company of any changes in nature and extent of the OLMRTS and to ensure the adequacy of the insurance coverage at all times in accordance with the provisions of the Contract.

## **29.11. Procurement of Insurance Policies**

The L2SP1 shall procure and submit evidence of insurance cover within twenty eight (28) days from the effectiveness of the Contract. The effective date of the coverage shall be the Commencement Date of this Contract. The validity of the insurance policy shall be coterminous with the L2MCS Period.

## **29.12. Insurance Company**

The policies of transportation insurance may be effected with expatriate Insurance Corporation, but all other insurances with respect to L2SP1's operations in Pakistan shall be effected with any of the insurance company operating in Pakistan with financial strength rating of AA approved by Pakistan Credit Rating Agency (PACRA) or JCR (Japan Credit Rating Agency) preferably the National Insurance Corporation (NIC) of Pakistan. However, it is mandatory that the insurance with respect to public properties (Civil Works and E&M Works constructed, installed, operated and/or located in the OLMRTS corridor) shall be effected only through the National Insurance Corporation (NIC) of Pakistan.

## **30. FORCE MAJEURE**

### **30.1. Definition of Force Majeure**

Force Majeure means any circumstances beyond the control of the parties, including but not limited to:

- a) war and other hostilities, (whether war be declared or not), invasion, act of foreign enemies, mobilization, requisition or embargo,
- b) ionising radiation or contamination by radio-activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosives, or other hazardous properties of any explosive nuclear assembly or nuclear components thereof, natural catastrophes such as earthquake, hurricane, typhoon, flood or volcanic activity,

If the Contract is terminated under Sub-Clause 30.7, the L2SP1 shall be paid the value of the work done.

The L2SP1 shall also be entitled to receive:

- a) the cost of materials or goods ordered for the Works or for use in connection with the Works which have been delivered to the L2SP1 or of which the L2SP1 is legally liable to accept delivery. Such materials or goods shall become the property of and be at the risk of the Employer when paid for by the Employer and the L2SP1 shall place the same at the Employer's disposal,
- b) the reasonable cost of removal of L2SP1's Equipment from the Site and the return thereof to the L2SP1's works in his country or to any other destination provided that such cost is not greater than the salvage value of such equipment, and
- c) the reasonable cost of repatriation of the L2SP1's staff and workmen employed wholly in connection with the L2MCS at the date of such termination provided that termination occurs before 48 months of the overall Contract Period.

#### 30.9. Release from Performance

If circumstances of Force Majeure occur and in consequence thereof under the law governing the Contract the parties are released from further performance of the Contract, the sum payable by the Employer to the L2SP1 shall be the same as that which would have been payable under **Sub-Clause 19.5 if the Contract had been terminated under Clause 19.**

### 31. DISPUTE RESOLUTION

#### 31.1. Disputes concerning Employer's Decisions

If a dispute of any kind whatsoever arises between the Employer and the L2SP1 in connection with, or arising out of, the Contract or the execution of the L2MCS, whether during the execution or after their completion and whether before or after repudiation or other termination of the Contract, including any dispute as to any opinion, instruction, determination, evaluation made by the Employer, the parties shall attempt to settle such dispute in the first instance within thirty (30) days by mutual discussion/information negotiation. If the dispute cannot be settled by way of mutual consultation, it shall be dealt with in accordance with Sub-Clause 31.2.

Unless the Contract has already been repudiated or terminated, the L2SP1 shall, in every case, continue to proceed with the L2MCS with all due diligence.

#### 31.2. Arbitration

Any dispute which could not be resolved by way of mutual consultations/informal negotiation as provided in Sub-Clause 31.1, either party may require that the dispute be referred for resolution by arbitration under the Pakistan Arbitration Act, 1940, as amended, by one or more arbitrators selected in accordance with said Law. The place for arbitration shall be Lahore, Pakistan. The award shall be final and binding on the parties.

Provided, however, that if either the Employer or the L2SP1 is dissatisfied with the mutual consultation process referred to in Sub-Clause 31.1, then the dissatisfied party shall notify the other party of such dissatisfaction within fourteen (14) days of conclusion of the thirty (30) days'

to L2SP1's responsibility, or any other pending liability accrued under this Contract, if any. The unforfeited portion of the Performance Security, any withheld amounts and/or the final settled amount shall be released by the Employer after the L2SP1 has cleared all its liabilities with respect to L2MCS.

After taking into account the foregoing, the Employer's determination of the value related with such termination shall be final unless the L2SP1 disputes such settlement amount, refuses to accept the payment and opts to raise the issue to dispute resolution under Clause 31.

### 33.3.2. **Payment upon Termination by the L2SP1**

In case of termination by the L2SP1 under Clause 33.2, the L2SP1 shall be entitled to its settlement value determined in accordance with Clause 19 (Termination for Convenience).

### 33.4. **General**

Termination is without prejudice to any accrued liabilities for breach or any other applicable rights of the Employer or the L2SP1 under this Agreement.

### 33.5. **Intentionally deleted.**

### 33.6. **Removal of L2SP1's Equipment**

On termination of Contract due to Employer's Default, the L2SP1 shall be entitled to remove immediately all L2SP1s' Equipment which is on the Corridor after handing back of prevailing Initial System Assets as issued/updated/replenished in the inventory. The returned equipment to the Employer shall include those parts or equipment already paid by the Employer.

## 34. **TAXES AND DUTIES**

### 34.1. **Payment of Taxes**

34.1.1. **The quoted price, in the financial bid, is inclusive of all the taxes and duties levied by the Government, except sales tax on services, at the time of bid submission. However, in future, if the total incidence of tax increases above 10% of what it was at the time of the bid submission, the L2SP1 and the Employer shall settle the issue through mutual consultations/agreement. Same dispensation will apply if the incidence of tax reduces over the contract period. The income withholding tax for the payment of mobilisation and Operation, which is 7% of mobilisation fee and Operation fee, has been considered. The Employer shall be responsible for the payment of balance due to the increase in of income withholding tax rate according to regulations of Pakistan. The L2SP1 shall be exempted from all obligation or responsibility for the payment of all the other Pakistani tax arising out of the Contract such as sales tax, etc.**

34.1.2. **In the event that the L2SP1 is obligated to pay any Taxes as required by the Law over and above the 7% withholding tax stipulated in Clause 34.1, the Employer shall pay the excess part on behalf of the L2SP1.**

### 34.2. **Personnel, Taxes and Duties**

The L2SP1 or his personnel shall pay all personal income tax or other taxes due in Pakistan, if any, for the personnel working in Pakistan employed by the L2SP1 for implementing the O&M Services or any other activity required by the Contract. The L2SP1 shall obtain, at his own cost, visas/work permits from competent authorities to enable any foreign personnel to work in Pakistan. The L2SP1 shall be responsible for all formalities in connection with passports,

obtaining visas, police permits, and expenses for customs duties, if any, related to personal goods of foreign personnel employed on the Project. However, the Employer will, if requested, assist the L2SP1 in obtaining visas and work permits. The request shall be limited to providing letters required by the relevant authorities.

**35. CONTRACT COST**

The L2SP1 shall bear all costs / expenses incurred by itself that are associated with the negotiations and preparation of the Contract documents before the signing of the Contract.

**36. WAIVER**

Failure of either party to insist upon strict performance of the obligations of the other party, under the Contract, shall in no way be deemed or construed to affect in any way the right of that party to require such performance.

**37. LIABILITY OF THE L2SP1**

The L2SP1 or his Subcontractor or assigns shall follow strictly, all relevant labour laws including the Workmen's Compensation Act and the Employer shall be fully indemnified for all claims, damages etc. arising out of any dispute between the L2SP1, his Sub-L2SP1 or permitted assigns and the labour employed by them.

**38. CHANGE IN COST AND LEGISLATION**

**38.1. Annual Monthly Adjustment to Contract Price After Commencement of Operations**

The Contract Price shall be adjusted on monthly (N) basis starting from after commencement of operation as follows, by taking consideration of changes of inflation rate and exchange rate as under:-

$$V_{PKR I} = V_{PKR} * \left( \frac{CPI_{N1}}{CPI_0} * 0.8 + 0.2 \right) - V_{PKR}$$

$$V_{PKR \$} = V_{PKR} * 0.01 * \left( \frac{USD_{N2}}{USD_0} * \left( 10 - \left( \frac{0.5}{3} * N2 \right) \right) + \left( 90 + \left( \frac{0.5}{3} * N2 \right) \right) \right) - V_{PKR}$$

$$V_{PKR N1} = V_{PKR} + V_{PKR I} + V_{PKR \$}$$

Where:

$V_{PKR}$ : Financial Bid Amount (the part to be paid in Pakistan Rupee, repayment of advancement payment is not included) ;

$CPI_{N1}$ : General CPI Number for the month of  $N1^{th}$  invoice , published by Pakistan Bureau of Statistics;

$CPI_0$  : General CPI Number for the month of Bid submission, published by Pakistan Bureau of Statistics;

$V_{PKR I}$ : Adjustment in O&M fee due to inflation (the part to be paid in Pakistan Rupee, repayment of advancement payment is not included) in the  $N1^{th}$  invoice;

$V_{PKR \$}$ : Adjustment in O&M fee due to variation in selling exchange rate of USD (the part to be paid in Pakistan Rupee, repayment of advancement payment is not included) in the  $N2^{th}$  invoice;

USD<sub>N2</sub>: USD to PKR Selling Exchange Rate value of the first working day after the month of N2<sup>th</sup> invoice published by State Bank of Pakistan at as read from the website <http://www.sbp.org.pk/ecodata/rates/war/WAR-Current.asp>

USD<sub>o</sub>: USD to PKR Selling Exchange Rate value published by State Bank of Pakistan on the date of Bid Submission as read from the website <http://www.sbp.org.pk/ecodata/rates/war/WAR-Current.asp>.

N1 : Sequential Monthly invoice No. since commencement of Train Operation.

N2 : Sequential Monthly invoice No. since commencement of Train Operation but not more than 60.

V<sub>PKR N1</sub>: Applicable O&M fee (the part to be paid in Pakistan Rupee, repayment of advancement payment is not included) in the N1<sup>th</sup> month;

## 38.2. CHANGE IN LAWS

The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the negotiated settlement of the Contract Price, which affect the L2SP1 in the performance of obligations under the Contract. If the L2SP1 suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Date of negotiated settlement of Contract Price, the L2SP1 shall give notice to the Employer and shall be entitled to submit a claim for payment of any such Cost under Clause 22, which shall be added to the Monthly Contract Price which is to be settled and paid within two months.

After receiving this notice, the Employer shall consult the L2SP1 in an endeavor to reach agreement. If agreement is not achieved, the Employer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Employer shall give notice to the L2SP1 of each agreement or determination, with supporting particulars. Each Party shall give effect to each agreement or determination, unless the L2SP1 gives notice, to the Employer, of his dissatisfaction with a determination within 14 days of receiving it. Either Party may then refer the dispute to Arbitration in accordance with Sub-Clause 31.

## 39. IMPORT

### 39.1. CUSTOMS AND IMPORT DUTIES

- a) Unless otherwise stated in this Contract, the Employer shall pay all customs and other relevant import duties and taxes in consequence of the importation of Equipment/operation materials, which is to be furnished/installed for the purpose of the Operation of the OLMRTS. If the L2SP1 is required to pay such customs, import duties and taxes, the Employer shall reimburse the amount and such amounts are to be billed as part of the monthly Contract price.
- b) Unless otherwise stated in this Contract, the L2SP1 shall pay all customs, import duties and taxes in consequence of the importation of Equipment (tools, machines etc.) to be used by the L2SP1 during the O&M of OLMRTS.

The Employer shall facilitate and help the L2SP1 for obtaining necessary import permits or licenses for such machinery. The Employer shall be responsible to provide the requisite documents if any for getting such permits or licenses.

### 39.2. CLEARANCE THROUGH CUSTOMS

2.0	Operation and Maintenance of:- <ul style="list-style-type: none"> <li>Automated Fare Collection (AFC)</li> </ul>	L2SP2 (Line 2 Service Provider 2)
3.0	Rendering of:- <ul style="list-style-type: none"> <li>Security and Safety Services</li> </ul>	L2SP3 (Line 2 Service Provider 3)
4.0	Rendering of:- <ul style="list-style-type: none"> <li>House Keeping and Janitorial Services</li> </ul>	L2SP4 (Line 2 Service Provider 4)

**54.1. General Scope of Services Applicable to L2SP1 for all System(s)**

- a. The Service Provider (henceforth referred to as L2SP1) shall operate and maintain all Systems and ensure that all Systems are fully functional /operational in line with their intended use at all times during the Service Hours. The L2SP1 shall ensure Reliability, Availability and Maintainability of all Systems for the duration of the O&M Contract.
  - b. The Employer shall not hold the L2SP1 responsible to provide services outside the capability of the OLMRTS equipment furnished, installed and commissioned under the EPC Contract.
- 54.2. The L2SP1 shall not manage the Contracts and Services rendered by other Service Providers; namely, L2SP2, L2SP3 and L2SP4; entities that are to be procured and so notified by the Employer.
- 54.3. The violations and Service Level Agreement for specific tasks, related to each category of hardware and software are described in the respective section for each of the key systems defined in Section 04.
- 54.4. The violations and penalties with respect to general scope of work, where applicable, are also provided within the respective sections of each of the key system in the Annex B. As part of the general scope of work, the L2SP1 shall perform the following tasks which are applicable to all systems:-
- 1) Except for the AFC System, Operate and Maintain the entire system; including all systems' components and peripherals, reliably and securely at all times during the Service Hours/ Scheduled Operating Hours in the O&M Period on a daily basis for 7 days/week, and 365 days/year at all stations, depot and stabling yard.
  - 2) Carryout Housekeeping and Janitorial Services at all stations (except passenger areas), depot and stabling yard during the Service Hours in the O&M Period on a daily basis for 7 days/week, and 365 days/year. L2SP1 shall keep the toilets in non-passenger areas neat, disinfected and in usable form fully equipped with toiletries. L2SP1 shall keep all the non-passenger areas free of dust marks, filth, scrap, spit marks, litter, cigarette buds, bad odor or whiff, and puddles through implementation of sound SOPs for cleanliness resulting in disinfected, fresh and pleasant work/operating environment (Refer to scope of services at Section 7).
  - 3) Promptly analyze faults / defects to establish if such faults/defects fall under the category of defect liability.
  - 4) Coordinate with relevant L2SP2 to establish if AFC System faults/defects fall under the category of defect liability.

- 5) In case L2SP1, concludes that a certain fault/ defect in any system, including AFC System, falls under the defect liability, L2SP1 shall carry out liaison with EPC Contractor, under intimation to the Employer, for immediate resolution of the said fault/defect in line with Clause 12.2 of the EPC Contract reproduced below:-

23.5. **12.2 Making Good Defects**

*The Contractor (EPC) shall, subject to Sub-Clause 12.9, be responsible for making good any defect in or damage to any part of the Works in his own scope of work which may appear or occur during the Defects Liability Period and which arises from, either:*

- a) *any defective materials, workmanship or design, or*
  - b) *any act or omission of the Contractor during the Defects Liability Period.*
  - c) **The Contractor (EPC) shall make good the Defects or damage as soon as practicable and at his own cost.**
- 6) For all systems other than AFC System, the L2SP1 shall diagnose and resolve faults; promptly replace faulty goods, if required; and make good/rectify manufacturing defects that may arise in the installed System during the O&M period in accordance with Clause 12.2 of the EPC Contract..
- 7) For AFC System, the L2SP1 shall upon proper diagnoses of faults/defects issue new parts to L2SP2 for replacement of faulty goods, if required, in a manner such that L2SP2 is not obstructed in making good faults/defects that arise in such installed system during the O&M period. In cases in which defect liability is established, only L2SP1 shall be allowed to liaison with the EPC Contractor for exercising Clause 12.2 of the EPC Contract.
- 8) The Employer's primary means of management of works of all L2SPs **as well as the Services of other Line Service Providers (LSPs) shall be through** an Issue/Complaint/Ticket Tracking and Management Information System (ITMIS) which shall be furnished, deployed and commissioned by L2SP1 for this purpose. ITMIS shall be a latest version (not older than January 2017) of a scalable web-based and app based software **with active provision to support 15 mass transit lines x 15 LSPs**. All other **LSPs (up to 225)**, shall have secondary level access to the ITMIS software while the Employer and L2SP1 shall have primary access to the ITMIS (Refer to Exhibit A). L2SP1 shall not delete tickets without prior written consent of the Employer. The ticket numbers shall be sequential and designed so that there is no repetition. The software shall be deployed to:
- a. record all system-wise equipment fault/break-down/malfunction issues observed by either Party/**LSPs**.

- b. lodge and record all maintenance activities carried out by the L2SP1, L2SP2, L2SP3, L2SP4 as well as those of other LSPs.
  - c. lodge and record all preventive/scheduled and unscheduled maintenance activities carried out by all LSPs to resolve such faults/break-downs/malfunctions of any/all E&M equipment maintained by L2SP1, L2SP2, L2SP3 , L2SP4 as well as those of other LSPs. L2SP1 shall lodge the program (all activities) of scheduled/preventive maintenance activities of its own Services in advance of each upcoming month collectively for the whole month.
  - d. disseminate reports by ITMIS in various categories and use such reports to assess and report compliance/penalties of other L2SPs with respect to their respective SLAs. It is clarified that Employer (and not L2SP1) shall directly manage services rendered by L2SP2, L2SP3, L2SP4 as well as those of other LSPs through ITMIS or otherwise.
  - e. L2SP1 shall ensure that ITMIS remains functional at all times during the Contract Period. L2SP1 shall also provide login accounts of ITMIS to all LSPs so intimated by the Employer.
- 9) L2SP1 shall provide post implementation support and carryout preventive, corrective, operational and periodical maintenance in accordance with O&M Manuals (EPC Clause 3-10), functional specifications mentioned in the technical proposal, hardware care instructions, codes and standards and good industry practices. The Service Provider shall submit on quarterly basis a hard copy of the maintenance schedule/program to be implemented on weekly, monthly, quarterly basis. The schedule/program shall be approved by the Employer prior to lodging in ITMIS and subsequent implementation.
- 10) Ensure maintenance of equipment of respective systems of OLMRTS which are installed in stabling yard, depot, stations, viaduct and High Voltage Substation.
- 11) Provide adequate labour, required supplies, sufficient tools and measurement / test equipment required to keep the system in perfect working order. L2SP1 shall provide all allied equipment and consumables required to carry out the scope of work.
- 12) In fixing a faulty part, the L2SP1 shall, with intimation to the Employer, be authorized to repair and/or replace/issue to L2SP2 a new part, if available in inventory of all spare parts, before determination of whether or not a faulty part is covered under warranty/defect liability period. Follow up action by the L2SP1 shall be in line with and subject to situations as under:-
- a. In case certain hardware equipment fails due to an accident/act for which the L2SP1 is fully responsible, the L2SP1 shall repair or replace such part, and remove the fault. Subsequently, L2SP1 shall replenish the inventory at his own cost.
  - b. In case certain hardware equipment fails due to manufacturing/performance

defects and that such a faulty part is covered under warranty/defect liability, and/or if any part is used from the inventory to correct such failure, the L2SP1 shall subsequently liaison with the EPC Contractor to seek replacement and replenish the inventory accordingly.

- c. If it is established that such failure of equipment is due to an accident/**act** for which the L2SP1 is partially responsible, the L2SP1 shall immediately strive to repair/replace such part to restore the system. However, within 7 days from the occurrence of such accident, the L2SP1 shall furnish to the Employer a written report of the accident establishing its own extent of responsibility and price. Both Parties shall mutually agree to finalize the report/share of responsibilities; the share to be paid by the Employer, if not covered under the insurance clauses, i.e. Clause 29, shall be subsequently billed with the monthly invoice for payment by the Employer for replenishing the part in the inventory. The L2SP1, after receiving a work-order from the Employer, shall replenish such part.
- d. In case certain hardware equipment fails due to an accident for which **one or more of other L2SP(s) is/are** fully responsible, the L2SP1 shall arrange repair or issue replacement of such part (from the inventory) to remove the fault. Subsequently, L2SP1 shall intimate the Employer of equivalent cost adjustment from the invoice(s) of the ~~L2SP2~~ **the relevant L2SP(s)** against replenishing the inventory. The L2SP1, after receiving a work-order from the Employer, shall replenish such part.
- e. If it is established that such failure of equipment is due to an accident/**act** for which any other L2SP is partially responsible, the L2SP1 shall immediately strive to arrange repair, or issue a replacement of such part from the inventory to L2SP2, to restore the system. However, within 7 days from the occurrence of such accident, the L2SP1 shall furnish to the Employer a written report of the accident establishing the extent of responsibility of the **relevant L2SP**. L2SP1 shall establish the share of responsibility after discussion with **relevant L2SP** and the employer before finalizing the report; the share to be paid by the Employer, if not covered under the insurance clauses, i.e. Clause 29 shall be subsequently billed with the monthly invoice for payment by the Employer as its share for replenishing the part in the inventory. L2SP1 shall also indicate to the Employer a deduction against share of accident from the invoice of the **relevant L2SP**. The L2SP1, after receiving a work-order from the Employer, shall replenish such part.

- 13) Provide safety equipments, personal protection equipment and other necessary materials as required for the execution of services under the contract.
- 14) Deploy a dedicated team of suitably skilled/technical personnel for operation and prompt maintenance/repair/replacement, reconfiguration and re-customization to the normal operational status, reinstallation, etc. of all defective/malfunctioning system

components.

- 15) The L2SP1 shall also update, reconfigure and re-customize the system software for all systems if any new software patches are available and maintain normal operational status. L2SP1 shall make update checks at least once every six months. L2SP1 shall install and maintain all possible system software, in a timely and efficient manner, so as to ensure adherence to stated service-level parameters.
- 16) Deploy an Inventory Management Information System (IMIS) to store, safeguard, maintain and update an inventory of equipment for all systems, tools/measurement equipments, spare parts and rescue operation equipment lying in Stations, Depot, Stabling yard, Viaduct and High Voltage Substation.. The IMIS shall be a latest version (not older than January 2017) of a state of the art computer based inventory management software capable of generating inventory use reports. L2SP1 shall provide read only rights of IMIS to the Employer for login in and generating reports. This report should include all equipments/spare parts lying in Stations, Depot, Stabling yard, Viaduct and High Voltage Substation furnished and/or installed by the EPC Contractor. The details shall include equipment/spare part name, serial numbers, equipment hardware and software versions, manufacture date, delivery date and code numbers, issuing and depositing person details, etc. If any equipment in the previous inventory is missing or lost without reasonable explanation, it shall be replaced by the L2SP1.
- 17) Provide ~~required~~ three (3) copies of O&M Manual Standard Operating Procedures (SOP) of each system in English to PMA.
- 18) Store, safeguard and maintain an adequate inventory of spare parts.
- 19) Ensure quality, robustness, and functionality of all hardware and software components associated with E&M systems, including all newly replaced/repared /replenished parts.
- 20) Be responsible for the mishandling, theft and safety of all indoor equipment of the OLMRTS.
- 21) Ensure proper and frequent cleaning of internal and external areas of the trains, and technical / mechanical areas of workshops at depot and stabling yard and non-public areas in the stations. The Employer shall be responsible for rest of the janitorial services, including cleaning of PSDs and APGs at stations.
- 22) Ensure proper and frequent cleaning of all OLMRTS equipments except PSDs and

- 51) Collect, process/treat and properly dispose all waste generated from Depot, Stabling yard workshop/office for onward pickup nearby the gates of such areas by the waste management company. The L2SP1 shall strictly follow the procedure defined by the Employer as attached at [Section 7](#) to dispose all waste.
- 52) Allow authorized PMA staff (and other authorized Government personnel) for inspection of installation, offices, depot, yard etc.. Wherever precautions, safety wares, proper training etc. is required prior to access, the L2SP1 shall indicate/provide such prerequisites to ensure general safety. For access to driver cabin of a train, a special intimation from the Employer shall be required.
- 53) Comply with the provisions of the applicable laws of the Lahore District, Punjab and Pakistan.
- 54) Comply, complete, and follow all reasonable commands, directions, and requirements of the Employer in respect of the operation, including directions and requirements that ensure public safety and security.
- 55) Ensure that all Software and Hardware interfaces, errors and documentation are in English language.
- 56) Upon completion/conclusion of the O&M Contract period, the L2SP1 shall transfer possession of all ISA including hardware, software, and goods forming part of the System, as well as the license to the Employer. The clearance will be dependent upon seeking Taking-over Certificate (TOC) from the Employer. The Service Provider shall be bound to render services until issuance of TOC which does not affect liability of contractor/Service Provider to keep System in fully operational condition even after expiry of contract.
- 57) Establish and operate Lost and Found centre in the first and last stations and in depot for OLMRTS.
- 58) Plan, design and conduct adequate and effective training programs for drivers, dispatchers, station masters /allied operation staff and all other staff engaged by the L2SP1 for train operation. Maintain training equipments and facilities procured for Orange Line. Also provide training to those staff (up to 30) nominated by the Employer and staff of other L2SPs.

- 59) Follow energy plans provided by the Employer and eliminate unnecessary use of utilities provided to the L2SP1 for office use on OLMRTS.
- 60) In case the Employer purchases, installs and tests any additional/replacement system/equipment which is/are provided by a third party, the Employer shall ensure that such system/equipment is fully compatible with the existing systems in OLMRTS. Subject to the full compatibility, the Employer may direct the L2SP1 to carry out the operation and maintenance of such system/equipment. In such undertaking, any changes to cost and terms and conditions associated with additional services (if any) shall be settled through an amendment to the Contract.
- 61) Keeping in view the maximum number of trains available for passenger service, verifiable operational speed (maximum safe commercial speed) and layover time at terminal stations, the Employer shall issue operation schedule(s) for implementation by the L2SP1. The L2SP1 shall follow Operation schedule issued by the Employer for operation of trains. Such schedule will include at least daily assignment of Revenue Trips, Headways, Speed Limits, and Dwell Time Limits. The Employer intends to run the system at a headway of 5 minutes during Service Hours in the first few months after commencement and then adjust the headway as per peak passenger hours established through AFC reports.
- 62) Ensure that the Network Monitoring System (NMS) of each relevant system is operated and maintained at/near maximum possible uptime of at least 99% on monthly basis.
- 63) With respect to use of administration building in the depot and the Operation Control Center (OCC), it is clarified that a team comprising of senior and junior staff members of the Employer shall be resident in the administration building/OCC to manage/monitor all mass transit operations of OLMRTS in Lahore. ~~including the operations of the Orange Line.~~ The L2SP1 shall plan for his use of the administration building and OCC in coordination with the Employer in a manner that reasonably accommodates the nominated staff of the Employer.
- 64) Follow Operation schedule issued by the Employer for operation of trains.
- 65) Prepare and submit following documentation of Orange Line to Employer for approval in English language within one year from start of operation. The document shall be prepared based on best international practices and good industry practices.
  - a) Maintenance Manual for each equipment/system/subsystem

12	The marked damage is aggravated according to damage standards.	Critical
13	The deformation, flaw, breaking and rail gap of the clamp plate (including emergency restore device) and bolt exceed the standards; looseness and defect of track bolt, bolt and gasket.	Critical
14	Sinking, falling and collapse of subgrade ballast bed; damage of sleepers; flooding of subgrade and bed ponding; the drainage ditch is silted up and there is crack and damage in the ballast bed.	Critical
16	Serious cracking and deformation in ballast bead and concrete short sleepers	Critical
17	The track sign is lost, damaged or indistinct.	Low
18	Obstacles within the scope of various bumpers and the bolt is loose beyond the acceptable limits	Critical
19	Peeling or chip falling at the rail end or top beyond the acceptable limits	Critical
20	Head abrasion, Rail surface scratch, Low rail joint, Wave abrasions, Rail surface and internal crack, Rail deformations, Rail deformations, Rail corrosion beyond acceptable limits	Critical
21	Track system is Operational but with Damaged / Missing Parts	Critical / High
22	Track geometry is not maintained in accordance with codes and standards	Critical
23	Missing fastening, fish bolts, base plats, insulation pads	Critical
24	Mud caking in ballasted section of track or ballast remains uncleaned after it is required	High
<u>25</u>	<u>Track is operational but damaged / with missing parts / in dilapidated condition.</u>	Category to be decided by the Employer under fault categories defined
26	Others	

**55. PENALTIES RELATED TO POWER SUPPLY SYSTEM INCLUDING HIGH & LOW VOLTAGE POWER SUPPLY, TRACTION POWER SUPPLY AND ILLUMINATIONS**

**KEY PERFORMANCE INDICATORS (KPIs)**

**KPI-1: Power System Fault Rectification (FR1)**

Fault considered shall be at a level of system, subsystem or component based on the extent of damage / failure / malfunction

1. Critical Category Fault:

Shutdown / failure / Malfunction to the extent of System Level during operational hours leading to service loss. Service loss at System level refers to

- a. Power shutdown of third rail causing suspension in train operations in entire or portion of the corridor or power shut down of associated system(s) causing no or inadequate control of associated system(s) to carry out train operations in safe, efficient and comfortable manner in entire or portion of the corridor.
- b. Power shutdown of entire station(s) or entire section(s) of corridor between two stations.

Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.

2. High Category Fault:

- a. Shutdown / failure / Malfunction to the extent of Sub-System Level during operational hours. There is no service loss at system level. Resolution time is 12 hours.

3. Low Category Fault: Shutdown / failure / Malfunction to the extent of Component Level during operational hours. There is no service loss at sub-system or system level or to the Client. Resolution time is 24 hours.

4. Repeated Fault: Repeated fault including Critical, high and low Category due to same reason in a particular month solely due to inadequate maintenance / negligence / fault on part of Service Provider.

TF = Total Number of Faults Considered for KPI-1: = A + B x (C/ D)

Where: -

- A = No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;
- B = No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category
- C = Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration

D = Assigned Resolution Time of the Category under Consideration		
FR	Threshold of FR	Penalty in Car Km (CK) Applicable if FR is less than threshold value
FR1 = (Critical Fault solved within assigned resolution time) / (Critical Fault solved within assigned resolution time + TF <sub>Critical</sub> ) x 100	More than 98 %	14155 x TF <sub>Critical</sub>
FR2 = (High Fault solved within assigned resolution time) / (High Fault solved within assigned resolution time + TF <sub>High</sub> ) x 100	95 %	1490 x TF <sub>High</sub>
FR3 = (Low Faults solved within assigned resolution time) / (Low faults solved within assigned resolution time + TF <sub>Low</sub> ) x 100	90 %	665 x TF <sub>Low</sub>
FR4 = (No of Non-Repeated Faults) / (Total No of Faults) x 100	90%	315 x No. of Repeated Faults
<p><b>KPI-2: SCADA System Fault Rectification (FR2)</b></p> <p><u>Critical Category Fault:</u> Complete or partial shutdown (inadequate information availability / control on real-time basis) during operations hours. Resolution time is 90 Minutes</p> <p><u>Non-Critical Category Fault:</u> SCADA working but information/control provided is not as per Client requirements. Resolution time is 12 Hours</p> <p><u>TF = Total Number of Faults Considered for KPI-2: = A + B x (C/ D)</u></p> <p>Where: -</p> <p>A = No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;</p> <p>B = No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category</p> <p>C = Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration</p> <p>D = Assigned Resolution Time of the Category under Consideration</p>		
FR1 = (Critical Fault solved within assigned resolution time) / (Critical Fault solved within assigned resolution time + TF <sub>Critical</sub> ) x 100	99 %	5945 (594.5) x TF <sub>Critical</sub>
FR1 = (Non-Critical Fault solved within assigned resolution time) / (Non-Critical Fault solved within assigned resolution time + TF <sub>NonCritical</sub> ) x 100	95 %	665 (66.5) x TF <sub>NonCritical</sub>

<b>FAULT CATEGORY IDENTIFICATION FOR KPI -1</b>		
<b>Sr. No</b>	<b>INCIDENT</b>	<b>FAULT CATEGORY</b>
1	Potential Transformer (PT) and/or Current Transformer (CT) is out of order.	Critical
2	Main transformer catches fire	Critical
3	Winding over-temperature alarm, winding super-high temperature trip, core over-temperature alarm, and fan running fault, etc.	Critical
4	Electric disconnecting switch failures, Main line section insulator failures, Voltage protection of DC frame failures, Rectifier failures, Power cable failures, AC and DC power system failures, Repeated bilateral tripping protection of DC750V feeder cabinet failures, Breaker energy storage signal failure	Critical
5	Abnormal switch-on loop signal, Abnormal switch-off loop signal;	Critical
6	Trip of control loop's MCB;	Critical
7	Splicing with foreign matters or short circuit of the third rail	Critical
8	The arcing, discharge, flashover, insulator breakdown and other failure phenomena of third rail contact systems:	Critical
9	Bus coupler switch did not respond.	Critical
10	Circuit breaker did not respond	Critical
11	Protection for stray current <del>will</del> <u>does</u> not work.	Critical
12	AC/DC auxiliary power supply system out of order.	Critical
13	Any panel is not working.	Critical
14	Power system is Operational but with Damaged / Missing Parts or Equipment are in dilapidated conditions	Category to be decided by the Employer under fault categories defined
15	Others	

FR2 = (High Fault solved within assigned resolution time ) / (High Fault solved within assigned resolution time +TF <sub>High</sub> ) x 100	95 %	2370 x TF <sub>High</sub>
FR3 = (Low Faults solved within assigned resolution time) / (Low faults solved within assigned resolution time +TF <sub>Low</sub> ) x 100	90 %	1055 x TF <sub>Low</sub>
FR4 = (No of Non-Repeated Faults) / (Total No of Faults) x 100	90%	585 x No. of Repeated Faults

**FAULT CATEGORY IDENTIFICATION FOR KPI -1**

Sr. No	INCIDENT	FAULT CATEGORY
1	Inadequate functioning of turnout	Critical
2	Signaling Failed to stop the train at proper location on the station	Critical
3	Equipments are unclean and dilapidated condition	High
4	Signaling system is Operational but Damaged / with Missing Parts / <b>in dilapidated condition</b>	Category to be decided by the Employer under fault categories defined
5	Others	

## KEY PERFORMANCE INDICATORS (KPIs)

### **KPI-1: Communication System Fault Rectification (FR1)**

Fault considered shall be at a level of system, subsystem or component based on the extent of damage / failure / malfunction

1. Critical Category Fault:

Shutdown / failure / Malfunction to the extent of System Level during operational hours leading to service loss. Service loss at System level refers to

- a. communication downlink with other associated system(s) causing no or inadequate control of associated system(s) to carry out train operations in safe, efficient and comfortable manner in entire or portion of the corridor.
- b. Public Address System (PAS) communication downlink between Operation Control Center (OCC) and station(s), depot, stabling yard; from Station Manager room at station(s); malfunction in automatic station(s) announcements in any one direction.
- c. Radio and Telephone communication downlink between Operation Control Center (OCC) and station(s), depot, stabling yard
- d. Passenger Information System (PIS) failure in entire station(s)
- e. CCTV cameras down in entire station(s), depot, stabling yard, corridor section between two stations.
- f. Master / Secondary Clock malfunction.
- g. Visual Control Panel (VSP) in OCC malfunction
- h. Audio Video recorder malfunction.

Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.

2. High Category Fault:

- a. Shutdown / failure / Malfunction to the extent of Sub-System Level during operational hours. There is no service loss at system level.

Resolution time is 12 hours.

3. Low Category Fault: Shutdown / failure / Malfunction to the extent of Component Level during operational hours. There is no service loss at sub-system or system level or to the Client. Resolution time is 24 hours.

4. Repeated Fault: Repeated fault including Critical, high and low Category due to same reason in a particular month solely due to inadequate maintenance / negligence / fault on part of Service Provider.

TF = Total Number of Faults Considered for KPI-1: = A + B x (C/ D)

A	=	No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;
B	=	No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category
C	=	Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration
D	=	Assigned Resolution Time of the Category under Consideration

FR	Threshold of FR	Penalty in Car Km (CK) Applicable if FR is less than threshold value
FR1 = (Critical Fault solved within assigned resolution time) / (Critical Fault solved within assigned resolution time + TF <sub>Critical</sub> ) x 100	More than 98 %	4375 x TF <sub>Critical</sub>
FR2 = (High Fault solved within assigned resolution time) / (High Fault solved within assigned resolution time + TF <sub>High</sub> ) x 100	95 %	155 x TF <sub>High</sub>
FR3 = (Low Faults solved within assigned resolution time) / (Low faults solved within assigned resolution time + TF <sub>Low</sub> ) x 100	90 %	70 x TF <sub>Low</sub>
FR4 = (No of Non-Repeated Faults) / (Total No of Faults) x 100	90%	35 x No. of Repeated Faults

**KPI-2: Fire Alarm System and Building Automation System Fault Rectification (FR2)**

Critical Category Fault: Complete or partial shutdown (inadequate information availability / control on real-time basis) during operations hours. Resolution time is 90 Minutes

Non-Critical Category Fault: System working but information / control provided is not as per Client requirements. Resolution time is 12 Hours

TF = Total Number of Faults Considered for KPI-2: =  $A + B \times (C / D)$

Where:-

A	=	No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;
B	=	No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category
C	=	Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration
D	=	Assigned Resolution Time of the Category under Consideration

FR1 = (Critical Fault solved within assigned resolution time ) / (Critical Fault solved within assigned resolution time +TF <sub>Critical</sub> ) x 100	99 %	1940 <del>(194)</del> x TF <sub>C</sub>
FR1 = (Non-Critical Fault solved within assigned resolution time ) / (Non-Critical Fault solved within assigned resolution time +TF <sub>NonCritical</sub> ) x 100	95 %	205 <del>(20.5)</del> x TF <sub>NC</sub>

**FAULT CATEGORY IDENTIFICATION FOR KPI -2**

Sr. No	INCIDENT	FAULT CATEGORY
1	Communication system is Operational but with Damaged / Missing Parts or Equipments are in dilapidated conditions	Category to be decided by the Employer under fault categories
2	Others	

**OPERATIONAL PENALTIES**

(In addition to procedures mentioned above, these penalties shall be invoked immediately upon occurrence of the listed incidents)

Sr. NO	DESCRIPTION	CK
1	Simultaneous breakdown of IP and wireless communication between the OCC and one or more station/depot/stabling yard/HVS. [In addition, penalty shall be multiplied by each hour (expressed in whole numbers) of delay]	57
2	No or improper communication from Station Manager Room [In addition, penalty shall be multiplied by each hour (expressed in whole numbers) of delay]	57
3	Malfunction in Visual Control impeding train operations monitoring / control from OCC [In addition, penalty shall be multiplied by	86

**7. PENALTIES RELATED TO FIRE FIGHTING, WATER SUPPLY AND DRAINAGE AN SYSTEM**

In case of non-service availability up to the extent designed, at System, Subsystem or component level during fire incidents resulting in damage to PMA property, complete recovery up to the extent of damage as decided by the Client shall be made.

<b>KEY PERFORMANCE INDICATORS (KPIs)</b>	
<b>KPI-1: <del>FFE</del> Fire Fighting, Water Supply and Drainage System Fault Rectification (FR)</b>	
Fault considered shall be at a level of system, subsystem or component based on the extent of damage / failure / malfunction	
<p>1. <u>Critical Category Fault</u>: Shutdown / failure / Malfunction to the extent of System, Sub-System or component level making it incapable of extinguishing fire at desired locations partially or completely and there is no system provision to offset it. OR Shutdown / failure / Malfunction to the extent of System, Sub-System or component level making it incapable of implementing the Emergency Evacuation Procedures partially or completely. OR shut down/failure/malfunction of water supply and drainage system, making it incapable of supplying water to usage ends or allowing drainage to disposal ends, and no alternative exists.</p> <p>Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.</p> <p>In case the blockage or leakage in water supply and drainage system occur at a point that is buried under certain structure or submerged under water, a reasonable resolution time shall be conveyed to the Employer by the Service Provider in writing in 90 minutes, penalties, if any, shall apply only after such conveyed time has elapsed.</p>	
<p>2. <u>Non-Critical Category Fault</u>: Shutdown / failure / Malfunction to the extent of System, Sub-System or component level without failing its capability to extinguish fire at desired locations and to implement Emergency Evacuation Procedures partially or completely. OR without complete failure in its capability to supply water to usage points or to allow drainage to disposal points. Resolution time is 12 hours.</p>	
<p>3. <u>Repeated Fault</u>: Repeated fault including Critical, high and low Category of same nature in a particular month solely due to inadequate maintenance / negligence / fault on part of Service Provider.</p>	
<p><b>TF = Total Faults Considered for KPI-1: = A + B x (C/ D)</b></p>	
A =	No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;
B =	No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category
C =	Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration

D = Assigned Resolution Time of the Category under Consideration		
FR	Threshold of FR	Penalty in Car Km (CK) Applicable if FR is less than threshold value
$FR1 = \frac{\text{Critical Fault solved within assigned resolution time}}{\text{Critical Fault solved within assigned resolution time} + TF_{\text{Critical}}} \times 100$	More than 98 %	$700 \times TF_{\text{Critical}}$
$FR2 = \frac{\text{High Fault solved within assigned resolution time}}{\text{High Fault solved within assigned resolution time} + TF_{\text{non-critical}}} \times 100$	95 %	$165 \times TF_{\text{non-Critical}}$
$FR4 = \frac{\text{No of Non-Repeated Faults}}{\text{Total No of Faults}} \times 100$	90%	60 No. x of Repeated Faults

**FAULT CATEGORY IDENTIFICATION FOR KPI -1**

Sr. No	INCIDENT	FAULT CATEGORY
1	System, subsystem or component failure during Testing twice in a month.	Critical
2	Fault causes the fire system to be switched-off/dead due to any part/equipment not in working condition or damaged.	Critical
3	Malfunctioning of fire panel switching fire system on Manual mode.	Critical
4	Fault causes the gas release incident due to fake alarm or malfunctioning of fire panel.	Critical
5	Immediate intervention on site due to fire incident.	Critical
6	Expired Portable fire extinguishers / foam trolleys filling	Critical
7	Unavailability of Fire Fighting Staff	Critical
8	<u>System operational but damaged / with missing parts / in dilapidated condition</u>	Category to be decided by the Employer in light of the Fault Category Definitions
9	Others	

## 8. PENALTIES RELATED TO HVAC SYSTEM

### KEY PERFORMANCE INDICATORS (KPIs)

#### **KPI-1: HVAC System Fault Rectification (FR)**

Fault considered shall be at a level of system, subsystem or component based on the extent of damage / failure / malfunction

1. Critical Category Fault: Shutdown / failure / Malfunction to the extent of System Level during operational hours leading to service loss partially or completely at desired locations. System level fault refers to no or inadequate control of room environment relevant to HVAC System. Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.
2. High Category Fault: Shutdown / failure / Malfunction to the extent of Sub-System Level during operational hours. There is no service loss at system level. Resolution time is 12 hours.
3. Low Category Fault: Shutdown / failure / Malfunction to the extent of Component Level during operational hours. There is no service loss at sub-system or system level. Resolution time is 24 hours.
4. Repeated Fault: Repeated fault including Critical, high and low Category of same nature in a particular month solely due to inadequate maintenance / negligence / fault on part of Service Provider.

TF = Total Faults Considered for KPI-1: = A + B x (C/ D)

Where:-

- A = No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;
- B = No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category
- C = Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration
- D = Assigned Resolution Time of the Category under Consideration

17	FCU Modulating Valve faulty	High
18	FCU Filters not replaced as per maintenance Schedule	Low
19	FCU producing abnormal vibration/noise	Low
	<b>VRF UNITS</b>	
20	VRF Indoor Unit not operational	Critical
21	VRF Outdoor Unit not operational	Critical
22	VRF Unit filters not clean	High
	<b>FANS</b>	
23	Supply Fan not operational	Critical
24	Exhaust Fan not operational	Critical
	<b>TUNNEL/UNDERGROUND STATION FANS</b>	
25	Supply Fan not operational	Critical
26	Exhaust Fan not operational	Critical
	<b>SMOKE FANS</b>	
27	Supply Fan not operational	Critical
28	Exhaust Fan not operational	Critical
<u>29</u>	<u>System operational but damaged / with missing parts / in dilapidated condition</u>	Category to be decided by the Employer under fault categories defined
30	Others	

9. **PENALTIES RELATED TO PLATFORM SLIDING DOORS AND AUTOMATIC PASSENGER GATES**

<b>KEY PERFORMANCE INDICATORS (KPIs)</b>		
<b>KPI-1: PSD-APG System Fault Rectification (FR)</b>		
<b>Fault shall be considered based on number of units effected</b>		
<ol style="list-style-type: none"> <li>1. <u>Critical Category Fault</u>: Complete / Partial shutdown of PSD/APG during operations hours at station leading to service loss. OR There is a situation in which operations of PSD/APG may lead to safety issues for passengers. Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.</li> <li>2. <u>High Category Fault</u>: The PSD/APG can operate but not as per designed and intended functional use or within acceptable limits specified and there is likelihood of service loss. Resolution time is 12 hours.</li> <li>3. <u>Low Category Fault</u>: The PSD/APG can operate but not as per designed and intended functional use or within acceptable limits specified. There is no likelihood of service loss or safety issue and a possible workaround exists. Resolution time is 24 hours.</li> <li>4. <u>Repeated Fault</u>: Repeated faults means one fault of similar nature occurring more than once under any category, dealt with in a particular month, which occurs with respect to the same equipment due to inadequate maintenance / negligence / fault on part of Service Provider.</li> </ol>		
<p><b>TF = Total Faults Considered for KPI-1: = A + B x (C/ D)</b></p> <p>A = No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;</p> <p>B = No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category</p> <p>C = Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration</p> <p>D = Assigned Resolution Time of the Category under Consideration</p>		
FR	Threshold of FR	Penalty in Car Km (CK) Applicable if FR is less than threshold value
FR1 = (Critical Fault solved within assigned resolution time ) / (Critical Fault solved within assigned resolution time +TF <sub>Critical</sub> ) x 100	More than 98 %	70 x TF <sub>Critical</sub>

FR2 = (High Fault solved within assigned resolution time ) / (High Fault solved within assigned resolution time +TF <sub>High</sub> ) x 100	95 %	25 x TF <sub>High</sub>
FR3 = (Low Faults solved within assigned resolution time) / (Low faults solved within assigned resolution time +TF <sub>Low</sub> ) x 100	90 %	15 x TF <sub>Low</sub>
FR4 = (No of Non-Repeated Faults) / (Total No of Faults) x 100	90%	5 x No. of Repeated Faults

**FAULT CATEGORY IDENTIFICATION FOR KPI -1 AND OPERATIONAL PENALTY ON OCCURANCE**

Sr. No	INCIDENT	FAULT CATEGORY	CK
1	PSD/APG sensor not responded to obstruction.	Critical	50
2	Beep Alarm malfunctioning during opening and closing of PSD/APG.	High	10
3	PSD/APG generating Mechanical rubbing sound.	High	
4	UPS failed to provide power for the duration specified in the contract in case of power outage.	Critical	
5	The PSD system failed to sense arrival of Train and failed to Open doors automatically.	Critical	100
6	Door did not response to Emergency Push Buttons.	Critical	600
7	PSD/APG is operational but <b>damaged / with missing parts / in dilapidated condition</b>	Category to be decided by the Employer under fault categories defined	
8	Others.		

## 10. PENALTIES RELATED TO ESCALATORS AND ELEVATORS

<b>KEY PERFORMANCE INDICATORS (KPIs)</b>		
<b>KPI-1: System Fault Rectification (FR)</b>		
<b>Fault shall be considered based on number of units effected</b>		
<ol style="list-style-type: none"> <li>1. <u>Critical Category Fault</u>: Complete shutdown of elevator/escalator during operations hours at station leading to service loss. OR There is a situation in which operations of elevator/escalator may lead to safety issues for passengers. Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.</li> <li>2. <u>High Category Fault</u>: The elevator/escalator can operate but not as per designed and intended functional use or within acceptable limits specified and there is likelihood of service loss. Resolution time is 12 hours.</li> <li>3. <u>Low Category Fault</u>: The elevator/escalator can operate but not as per designed and intended functional use or within acceptable limits specified. There is no likelihood of service loss or safety issue and a possible workaround exists. Resolution time is 24 hours.</li> <li>4. <u>Repeated Fault</u>: means one fault of similar nature occurring more than once under any category, dealt with in a particular month, which occurs with respect to the same equipment due to inadequate maintenance / negligence / fault on part of Service Provider.</li> </ol>		
<p>TF = Total Faults Considered for <b>KPI-1</b>: = <math>A + B \times (C / D)</math></p> <p>A = No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category;</p> <p>B = No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category</p> <p>C = Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration</p> <p>D = Assigned Resolution Time of the Category under Consideration</p>		
FR	Threshold of FR	Penalty in Car Km (CK) Applicable if FR is less than threshold value
FR1 = (Critical Fault solved within assigned resolution time ) / (Critical Fault solved within assigned resolution time + TF <sub>Critical</sub> ) x 100	More than 98 %	230 x TF <sub>Critical</sub>
FR2 = (High Fault solved within assigned resolution time ) / (High Fault solved within assigned resolution time + TF <sub>High</sub> ) x 100	95 %	80 x TF <sub>High</sub>

FR3 = (Low Faults solved within assigned resolution time) / (Low faults solved within assigned resolution time +TF <sub>Low</sub> ) x 100	90 %	40 (4) x TF <sub>L</sub>
FR4 = (No of Non-Repeated Faults) / (Total No of Faults) x 100	90%	15 (1.5) x No. of Repeated Faults

FAULT CATEGORY IDENTIFICATION FOR KPI -1		
Sr. No	INCIDENT	FAULT CATEGORY
1	Improper door operations of elevator or door sensors not working or dead door closing buttons..	Critical
2	Jerks in Elevator/escalators, service is interrupted.	Critical
3	Elevator/escalators generating Mechanical rubbing sound	High
4	Camera inside the Elevators/escalators are malfunctioned	High
5	<ul style="list-style-type: none"> <li>i. Incorrect / delayed response of sensors disengaging power saving feature.</li> <li>ii. Escalator/elevator did not respond to emergency <b>and safety</b> handling features such as brakes etc. <b>(A penalty of 200 CK will be levied upon such each occurrence)</b></li> </ul>	Critical
6	Elevator/escalator is Operational <b>but damaged / with missing parts / in dilapidated condition.</b>	Category to be decided by the Employer under fault categories defined
7	Others	

## SECTION 05 - TECHNICAL EVALUATION CRITERIA

If eligible, each bid shall be technically evaluated according to the criteria provided in this section. The details of categories and scores are provided in the table below:-

Sr. No	CATEGORIES	SCORE
1	<b>ORGANIZATION's</b> EXPERIENCE RELATED TO OPERATIONS OF TRAINS	15
2	<b>ORGANIZATION's</b> EXPERIENCE RELATED TO MAINTENANCE OF ROLLING STOCK	15
3	<b>ORGANIZATION's</b> EXPERIENCE RELATED TO MAINTENANCE OF TRACK	10
4	<b>ORGANIZATION's</b> EXPERIENCE RELATED TO OPERATIONS AND MAINTENANCE OF POWER SUPPLY SYSTEM	10
5	<b>ORGANIZATION's</b> EXPERIENCE RELATED TO OPERATIONS AND MAINTENANCE OF SIGNALING AND COMMUNICATION SYSTEM	10
6	<b>ORGANIZATION's</b> EXPERIENCE RELATED TO OPERATIONS AND MAINTENANCE OF VARIOUS SYSTEMS INCLUDING FIRE FIGHTING, HAVAC, WATER SUPPLY AND SEWERAGE, ESCLATORS, ELEVATORS, PLATFORM SCREEN DOORS AND AUTOMATIC PLATFORM GATES	10
7	FINANCIAL STRENGTH	15
8	HUMAN RESOURCE CAPABILITIES	15
<b>Total Score</b>		<b>100</b>

In order to be pass the Technical Evaluation Criteria:-

- The Bidder has to score minimum specified marks in category 1 to 7 as mentioned in the relevant coming sections.
- The bidder has to provide Human Resource meeting the minimum criteria in category 8
- The bidder has to score 75 marks in total.
- The total score of the Bidder if in decimals, will be rounded off to the nearest integer.

**The Joint Venture will be evaluated jointly as single entity in terms of experience and other requirements unless mentioned otherwise.** The method for scoring for each category is explained in the sections below

### 1. ORGANIZATION's EXPERIENCE RELATED TO OPERATIONS

The total score of this category is 15 out of which Bidder has to score at least 7.5 marks. The score shall be calculated according to following Formula:-

$$(Ax0.2 + Bx0.7 + Cx0.1) \times 15$$

where

A = Value assigned against Number of Metro Lines operated by the Bidder

B = Value assigned against combined performance evaluation of operations of three (03) Metro Lines operated by the Bidder

C = Value assigned against Bidder's international experience in operations

The Bidder has to provide details of three (03) Metro Lines or more (Any Type from 1 to 4) operated by him. Bidder must have an operational experience of 03 years or more **in each of** at least 03 Metro Lines. **In case of JV experience of 03 years in a particular Metro Line must pertain to single member only, however the number of Metro Lines will be considered collectively.** The scope of Bidder in all Metro Lines must include the following:-

- a. Operations of trains with centralized dispatching and supervision through Command and Control Centre.
- b. Operations of trains with Main Line Signaling System consisting of Automatic Train Control System (ATC) .

Bidder shall provide the details through Form TECH-3A to TECH 3C

The score can be computed through following steps:-

**STEP 1 - FINDING VALUE OF 'A'**

'A' shall be taken from the following Table:-

Number of Metro Lines Operated	A
5 or more	1
4	0.9
3	0.8

**STEP 2 - COMPUTING VALUE OF 'B'**

For computation of 'B' combined evaluation of first three (03) Metro Lines enlisted in Form TECH-3A by the Bidder will be done according to the following steps:-

**STEP 2-1 - Finding values of various multipliers for each Metro Line.**

- a) Find the value of Similarity Multiplier (SM) against each Metro Line

Type of Metro Line	SM
Type 1 & 2	1
Type 3	0.9
Type 4	0.6

- b) Find the value of Experience Multiplier (EM) against each Metro Line

Number of Years of Successful Operation of the Line	EM
More than 5 years	1
More than 4 to 5 years	0.9
3 to 4 years	0.8

From (c) to (f) the duration taken shall be the last two years of operation under the Bidder. In case the Bidder is still performing the operation services of Metro Line at bid submission time, the duration will be from 01.01.2017 to 31.12.2018.

0.15	AVG_PsI	0.15 x AVG_PsI
0.15	AVG_HI	0.15 x AVG_HI
0.15	AVG_CI	0.15 x AVG_CI
0.10	AVG_StI	0.10 x AVG_StI
0.10	AVG_RI	0.10 x AVG_RI
		B = TOTAL $\Sigma$ (Factors x Average of Indices)

### **STEP 3 - FINDING VALUE OF 'C'**

'C' will be taken as 1 if Bidder has international experience of being train operator of one or more Metro Lines or providing Technical support (consultancy / advisory / trainings) for train operations. Otherwise 'C' will be taken as 0. International experience means experience in a country other than the home country of the Bidder.

### **STEP 4 - COMPUTATION OF CATEGORY SCORE**

Insert values of A, B and C, as computed from the above steps into the formula i.e.  $(Ax0.2 + Bx0.7 + Cx0.1) \times 15$ , to compute the score in this category

## **2. ORGANIZATION'S EXPERIENCE RELATED TO MAINTENANCE OF ROLLING STOCK**

The total score of this category is 15 out of which Bidder has to score at least 7.5 marks. The score shall be calculated according to following Formula:-

$$(Ax0.2 + Bx0.7 + Cx0.1) \times 15$$

where

A = Value assigned against Number of Metro Lines for which the Bidder has provided complete services for maintenance of Rolling Stock for the entire Metro Line.

B = Value assigned against combined performance evaluation of three (03) Metro Lines for which the Bidder has provided complete services for maintenance of Rolling Stock for the entire Metro Line.

C = Value assigned against Bidder's international experience in providing services for maintenance of rolling stock in Metro Lines.

The Bidder has to provide details of three (03) Metro Lines or more (Any Type from 1 to 4). Bidder must have an experience of 03 years or more **in each of** at least 03 Metro Lines. **In case of JV experience of 03 years in a particular Metro Line must pertain to single member only, however the number of Metro Lines will be considered collectively.** Bidder shall provide the details through Form TECH-4A to TECH-4C

The score can be computed through following steps:-

### **STEP 1 - FINDING VALUE OF 'A'**

'A' shall be taken from the following Table:-

The total score of this category is 10 out of which Bidder has to score at least 5 marks. The score shall be calculated according to following Formula:-

$$(Ax0.2 + Bx0.7 + Cx0.1) \times 10$$

where

A = Value assigned against Number of Metro Lines for which the Bidder has provided complete maintenance services of the track for the entire Metro Line

B = Value assigned against combined performance evaluation of three (03) Metro Lines for which the Bidder has provided complete maintenance services of the track for the entire Metro Line

C = Value assigned against Bidder's international experience in maintenance of rolling stock of Metro Lines.

The Bidder has to provide details of three (03) Metro Lines or more (Any Type from 1 to 4). Bidder must have an experience of 03 years or more **in each of** at least 03 Metro Lines. **In case of JV experience of 03 years in a particular Metro Line must pertain to single member only, however the number of Metro Lines will be considered collectively.** Bidder shall provide the details through Form TECH-5A to Form TECH-5C

The score can be computed through following steps:-

#### **STEP 1 - FINDING VALUE OF 'A'**

'A' shall be taken from the following Table:-

Number of Metro Lines for which the Bidder has maintained the track	A
5 or more	1
4	0.9
3	0.8

#### **STEP 2 - COMPUTING VALUE OF 'B'**

For computation of 'B' combined evaluation of first three (03) Metro Lines enlisted in Form TECH 3-1 by the Bidder will be done according to the following steps:-

##### **STEP 2-1 - Finding values of various multipliers for each Metro Line.**

a) Find the value of Similarity Multiplier (SM) against each Metro Line

Type of Metro Line	SM
Type 1 & 2	1
Type 3	0.9
Type 4	0.6

b) Find the value of Experience Multiplier (EM) against each Metro Line

Number of Years of maintenance of track	EM
More than 5 years	1
More than 4 to 5 years	0.9

0.25	AVG_F2I	0.25 x AVG_F2I
0.1	AVG_Tsl	0.1 x AVG_Tsl
		B = TOTAL $\Sigma$ (Factors x Average of Indices)

### **STEP 3 - FINDING VALUE OF 'C'**

'C' will be taken as 1 if Bidder has international experience of maintaining the track of one or more Metro Lines or providing Technical support (consultancy / advisory / trainings) in this regard. Otherwise 'C' will be taken as 0.

International experience means experience in a country other than the home country of the Bidder.

### **STEP 4 - COMPUTATION OF CATEGORY SCORE**

Insert values of A, B and C, as computed from the above steps into the formula i.e.  $(Ax0.2 + Bx0.7 + Cx0.1) \times 10$ , to compute the score in this category

## **4. ORGANIZATION'S EXPERIENCE RELATED TO OPERATION AND MAINTENANCE OF POWER SUPPLY SYSTEM**

The total score of this category is 10 out of which Bidder has to score at least 05 marks. The score shall be calculated according to Formula =  $A \times 0.10$ , where A = Total points scored in the Criteria Table given below. The Bidder has to score non-zero points in criteria at Serial No 1 to 4.

Sr No.	Criteria	Scoring Criteria
1	Number of years of experience in operation and maintenance of High Voltage Substations	More than 9 years = 20 Points More than 8 to 9 years = 18 Points More than 7 to 8 years = 14 Points More than 6 to 7 years = 10 Points 5 to 6 years = 06 Points Less than 5 years = 00 Points
2	Total coverage area in acres supported by the High Voltage Substations operated and maintained by the Bidder so far.	More than 80 = 20 Points More than 70 to 80 = 16 Points More than 60 to 70 = 12 Points More than 50 to 60 = 08 Points 40 to 50 = 04 Points Less than 40 = 00 Points
3	Number of years of experience in operation and maintenance of <b>Third Rail</b> Traction Supply System for Trains	More than 9 years = 15 Points More than 8 to 9 years = 14 Points More than 7 to 8 years = 11 Points More than 6 to 7 years = 08 Points 5 to 6 years = 05 Points Less than 5 years = 00 Points
4	Total length of the track in Kms for which <b>Third Rail</b> Traction Supply <b>System</b> is operated and maintained by the bidder so far.	More than 40 = 15 Points More than 30 to 40 = 12 Points More than 20 to 30 = 08 Points 10 to 20 = 05 Points Less than 10 = 00 Points

17	Number of years of experience in operation and maintenance of Telephone System	More than 5 years = 04 Points More than 3.5 to 5 years = 03 Points 2 to 3.5 years = 02 Points Less than 2 years = 00 Points
18	Total access gateways supported by the Telephone System operated and maintained by the Bidder so far.	More than 800 = 04 Points More than 500 to 800 = 03 Points 200 to 500 = 02 Points Less than 200 = 00 Points
19	Number of years of experience in operation and maintenance of Audio Video Recording System	More than 5 years = 04 Points More than 3.5 to 5 years = 03 Points 2 to 3.5 years = 02 Points Less than 2 years = 00 Points
20	Combined Storage Capacity in Tera Bytes of Audio Video Recording Systems maintained by the Bidder so far	More than 300 = 04 Points More than 200 to 300 = 03 Points 100 to 200 = 02 Points Less than 100 = 00 Points

**6. ORGANIZATION'S EXPERIENCE RELATED TO OPERATIONS AND MAINTENANCE OF VARIOUS SYSTEMS INCLUDING FIRE FIGHTING, HAVAC, WATER SUPPLY AND SEWERAGE, ESCLATORS, ELEVATORS, PLATFORM SCREEN DOORS AND AUTOMATIC PLATFORM GATES**

The total score of this category is 10 out of which Bidder has to score at least 05 marks. The score shall be calculated according to Formula =  $A \times 0.10$ , where A = Total points scored in the Criteria Table given below. The Bidder has to score non-zero points in criteria at Sr. No 1 to 10.

Sr No.	Criteria	Scoring Criteria
1	Number of years of experience in operation and maintenance of Fire fighting systems including Fire hydrant system, Automatic Sprinkler System, Portable Fire extinguishers, HFC-227ea, CO2 and other gas fire extinguishing systems	More than 5 years = 09 Points More than 4 to 5 years = 08 Points More than 3 to 4 years = 06 Points 2 to 3 years = 04 Points Less than 2 years = 00 Points
2	Total floor area in Sq-m of public / commercial buildings for which Fire Fighting System is operated and maintained by the bidder so far.	More than 55,000 = 09 Points More than 40,000 to 55,000 = 08 Points More than 25,000 to 40,000 = 06 Points 10,000 to 25,000 = 04 Points Less than 10,000 = 00 Points
3	Number of years of experience in operation and maintenance of HVAC System consisting of Chillers, cooling towers, pumps, water separators and collectors, water pressure devices, pipes etc.	More than 5 years = 09 Points More than 4 to 5 years = 08 Points More than 3 to 4 years = 06 Points 2 to 3 years = 04 Points Less than 2 years = 00 Points
4	Total floor area in Sq-m of public / commercial buildings for which HVAC System is operated and maintained by the bidder so far.	More than 55,000 = 09 Points More than 40,000 to 55,000 = 08 Points More than 25,000 to 40,000 = 06 Points 10,000 to 25,000 = 04 Points Less than 10,000 = 00 Points

5	Number of years of experience in operation and maintenance of Outdoor and Indoor Escalators.	More than 5 years = 09 Points More than 4 to 5 years = 08 Points More than 3 to 4 years = 06 Points 2 to 3 years = 04 Points Less than 2 years = 00 Points
6	Total number of escalators operated and maintained by the bidder in various projects so far	More than 150 = 09 Points More than 120 to 150 = 08 Points More than 90 to 120 = 06 Points 60 to 90 = 04 Points Less than 60 = 00 Points
7	Number of years of experience in operation and maintenance of Elevators	More than 5 years = 09 Points More than 4 to 5 years = 08 Points More than 3 to 4 years = 06 Points 2 to 3 years = 04 Points Less than 2 years = 00 Points
8	Total number of elevators operated and maintained by the bidder in various projects so far	More than 50 = 09 Points More than 40 to 50 = 08 Points More than 30 to 40 = 06 Points 20 to 30 = 04 Points Less than 20 = 00 Points
9	Number of years of experience in operation and maintenance of Platform Screen Doors / Automatic Platform Gates	More than 5 years = 09 Points More than 4 to 5 years = 08 Points More than 3 to 4 years = 06 Points 2 to 3 years = 04 Points Less than 2 years = 00 Points
10	Total number of Platform Screen Doors and Automatic Platform Gates operated and maintained by the bidder in various projects so far	More than 900 = 09 Points More than 700 to 900 = 08 Points More than 500 to 700 = 06 Points 300 to 500 = 04 Points Less than 300 = 00 Points
11	Number of years of experience in operation and maintenance of Water Supply, Sanitations and Sewerage System consisting of pipe network, underground and above ground water tanks, septic tanks, pumping stations including waste water pumping station, sewerage pumping station, rain water pumping station etc.	More than 5 years = <del>09</del> <u>05</u> Points More than 4 to 5 years = <del>08</del> <u>04</u> Points More than 3 to 4 years = <del>06</del> <u>03</u> Points 2 to 3 years = <del>04</del> <u>02</u> Points Less than 2 years = 00 Points
12	Total floor area in Sq-m of public / commercial buildings for which Water Supply, Sanitations and Sewerage System is operated and maintained by the bidder so far	More than 55,000 = <del>09</del> <u>05</u> Points More than 40,000 to 55,000 = <del>08</del> <u>04</u> Points More than 25,000 to 40,000 = <del>06</del> <u>03</u> Points 10,000 to 25,000 = <del>04</del> <u>02</u> Points Less than 10,000 = 00 Points

## TECHNOCAL PROPOSAL SUBMISSION - STANDARD FORMS

Technical Proposal Standard Forms shall be used for the preparation of the Technical Proposal as required in this Request for Proposal. The Bidder has to provide information using the forms provided in this section along with other requirements where mentioned . The Client reserves the right to request additional information for clarification or further establishment of information provided. All Technical Proposal Standard Forms except ~~Tender Security~~ TECH-0, TECH-1 & TECH-12 shall be notarized.

FORM TECH-0	Cover Letter.
FORM TECH-1	Technical Proposal Submission Form.
FORM TECH-2	Organizational profile.
FORM TECH-3A	List of Metro Lines operated by the Bidder.
FORM TECH-3B	Details of each Metro Line operated by the Bidder.
FORM TECH-3C	Details of operational features of each Metro Line Operated by the Bidder.
FORM TECH-4A	List of Metro Lines for which the Bidder has maintained the Rolling Stock.
FORM TECH-4B	Details of each Metro Line for which the Bidder has maintained Rolling Stock.
FORM TECH-4C	Details of Service Failures of each Metro Line regarding maintenance of Rolling Stock.
FORM TECH-5A	List of Metro Lines for which the Bidder has maintained the track.
FORM TECH-5B	Details of each Metro Line for which the Bidder has maintained the track.
FORM TECH-5C	Details of Service Failures of each Metro Line regarding maintenance of track.
FORM TECH-6	Details of experience in various other disciplines.
FORM TECH-7A	Summary of total staff planned for the Project.
FORM TECH-7B	Number of staff planned for key & <del>non</del> other than key positions.
FORM TECH-7C	Details of staff proposed for key positions.
FORM TECH-7D	Details of staff proposed for <del>non</del> other than key positions.
FORM TECH-7E	Short curriculum vitae (CV) of staff proposed for key positions
FORM TECH-8	Financial strength
FORM TECH-9	Power of Attorney
FORM TECH-10	Undertaking
FORM TECH-11	Affidavit - Integrity Pact
FORM TECH-12	Tender Security

**FORM TECH-3A LIST OF METRO LINES OPERATED BY THE BIDDER.**

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*Using the Format below, provide list of Metro Lines operated by the Bidder as required in the Request for Proposal. The total number of Metro Lines will be considered for computation of 'A'. First 03 Metro Lines in the table shall be selected for combined performance evaluation in order to compute 'B'. (Please refer to the Evaluation Criteria for Organization's experience related to operations)*

Sr. No	NAME OF METRO LINE	NAME OF THE FIRM

**Please provide short description of International experience if any, in Metro Line operations or in Technical Support (Consultancy / Advisory / Trainings) for train operations.**

<b><u>Sr. No</u></b>	<b><u>NAME OF COUNTRY</u></b>	<b><u>SHORT DESCRIPTION OF EXPERIENCE</u></b>

**FORM TECH-3B DETAILS OF EACH METRO LINE OPERATED BY THE BIDDER**

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Using the Format below, provide information on each Metro Line operated by the Bidder as required in the Request for Proposal.

Name of Metro Line	Maximum Design Capacity in terms of Passengers per Hour per Direction (pphd)
Date of Inception of Metro Line operations & Date of Bidder's Engagement ( <b>From-To</b> ) with Metro Line	Bidder's Type of Engagement with Metro Line (Owner / Contractor)
dd-mm-yyyy & <b>From-To</b> (dd-mm-yyyy)	
<b>Details in Case of Bidder's Engagement as Contractor</b>	
Contract Value in USD	Contract Start Date
Contract End Date	Participation as Single Entity / JV
In case of JV, participation as Lead / Member	In case of JV, names of other member firms
<b>Main Operational Features of Metro Line</b>	
Duration taken shall be the last two years of operation under the Bidder. In case the Bidder is still performing the operation services of Metro Line at bid submission time, the duration will be from 01.01.2017 to 31.12.2018. (Details to be provided using Form Tech- <del>4</del> 3C)	
Maximum Number of Pairs Scheduled in a day	Maximum pphpd served in a day
Minimum Peak Headway Scheduled in a day (Minutes)	Average Daily Ridership
<b>Other Features</b>	
Number of Stations	Journey Distance (Km)
Scheduled Journey Time (Minutes)	
<b>Narrative Description of the Project (You can attach one extra sheet one side only)</b>	
<b>Details of Actual Services Provided by the Bidder as Single Entity or as JV Related to Operations</b>	

**FORM TECH-4A LIST OF METRO LINES FOR WHICH THE BIDDER HAS MAINTAINED THE ROLLING STOCK.**

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*Using the Format below, provide list of Metro Lines in which the Bidder has provided the maintenance services for Rolling Stock as required in the Request for Proposal. The total number of Metro Lines will be considered for computation of 'A'. First 03 Metro Lines in the table shall be selected for combined performance evaluation in order to compute 'B'. (Please refer to the Evaluation Criteria for Organization's experience related to Rolling Stock)*

Sr. No	NAME OF METRO LINE	NAME OF THE FIRM

**Please provide short description of International experience if any, in maintenance of Rolling Stock of one or more Metro Lines or providing Technical Support (Consultancy / Advisory / Trainings) in this regard.**

<u>Sr. No</u>	<u>NAME OF COUNTRY</u>	<u>SHORT DESCRIPTION OF EXPERIENCE</u>

**FORM TECH-4B      DETAILS OF EACH METRO LINE FOR WHICH THE BIDDER HAS MAINTAINED THE ROLLING STOCK**

*Using the Format below, provide information on each Metro Line for which the Bidder has provided the maintenance services for Rolling Stock as required in the Request for Proposal.*

Name of Metro Line	Maximum Design Capacity in terms of Passengers per Hour per Direction (pphd)
Date of Inception of Metro Line operations & Date of Bidder's Engagement (From-To) with Metro Line	Bidder's Type of Engagement with Metro Line (Owner / Contractor)
dd-mm-yyyy & From-To (dd-mm-yyyy)	
<b>Details in Case of Bidder's Engagement as Contractor</b>	
Contract Value in USD	Contract Start Date
Contract End Date	Participation as Single Entity / JV
In case of JV, participation as Lead / Member	In case of JV, names of other member firms
<b>Main Features of Metro Line Related to Maintenance of Rolling Stock</b>	
Fleet Size maintained in terms of number of train sets	Length of each train set (meters)
All Trains Maintained in the Fleet are equipped with Automatic Train Protection Function (Yes/No)	Rolling Stock maintained includes as a part of Fleet, Chinese Standard Type B1 Rolling Stock (Code-GB50157) OR Rolling Stock of Equal or Higher Specifications (Yes / No)(Please establish through any proper evidence in case of equal or higher specifications)
<b>Performance of Rolling Stock</b>	
This pertains to Service Failures during the last two years attributable to maintenance under the Bidder. In case the Bidder is still performing the maintenance services of Metro Line at bid submission time, the duration will be from 01.09.2016 to 30.08.2018. (Details of Service Failures to be provided using Form Tech-4C )	
Number of Hours of Operation during 02 Years	Fleet Size in terms of Number of train sets during 02 years
Service Failure-1: Total incidents in which the vehicle had to be evacuated, or vehicle remained motionless for more than 5 minutes before recovery.	Service Failure-2: Total incidents in which the vehicle had to be towed, disturbing all the line traffic
<b>Narrative Description of the Project (You can attach one extra sheet one side only)</b>	
<b>Details of Actual Services, Provided by the Bidder as Single Entity or as JV Related to Maintenance Services for Rolling Stock</b>	

**FORM TECH-5A LIST OF METRO LINES FOR WHICH THE BIDDER HAS MAINTAINED THE TRACK.**

*Using the Format below, provide list of Metro Lines in which the Bidder has provided the maintenance services for Track as required in the Request for Proposal. The total number of Metro Lines will be considered for computation of 'A'. First 03 Metro Lines in the table shall be selected for combined performance evaluation in order to compute 'B'. (Please refer to the Evaluation Criteria for Organization's experience related to Track)*

Sr. No	NAME OF METRO LINE	NAME OF THE FIRM

*Please provide short description of International experience if any, in maintenance of track of one or more Metro Lines or providing Technical Support (Consultancy / Advisory / Trainings) in this regard.*

<u>Sr. No</u>	<u>NAME OF COUNTRY</u>	<u>SHORT DESCRIPTION OF EXPERIENCE</u>

**FORM TECH-5B      DETAILS OF EACH METRO LINE FOR WHICH THE BIDDER HAS MAINTAINED THE TRACK**

Using the Format below, provide information on each Metro Line for which the Bidder has provided the maintenance services for Track as required in the Request for Proposal.

Name of Metro Line	Maximum Design Capacity in terms of Passengers per Hour per Direction (pphpd)
Date of Inception of Metro Line operations & Date of Bidder's Engagement <b>(From-To)</b> with Metro Line	Bidder's Type of Engagement with Metro Line (Owner / Contractor)
dd-mm-yyyy & <b>(From-To)</b> (dd-mm-yyyy)	
<b>Details in Case of Bidder's Engagement as Contractor</b>	
Contract Value in USD	Contract Start Date
Contract End Date	Participation as Single Entity / JV
In case of JV, participation as Lead / Member	In case of JV, names of other member firms
<b>Main Features of Metro Line Related to Maintenance of Track</b>	
Length of Track Maintained (km)	Main Line Track consists of Standard Gauge , 40-60 kg/m U75V Continuously welded hot rolled rails with concrete tie integrated ballast bed OR Main Line having track with equivalent or higher specs <i>(Please establish through any proper evidence in case of equal or higher specifications)</i>
<b>Performance of Rail Track</b>	
This pertains to Service Failures during the last two years attributable to maintenance under the Bidder. In case the Bidder is still performing the maintenance services of Metro Line at bid submission time, the duration will be from 01.01.2017 to 31.12.2018. <i>(Details of Service Failures to be provided using Form Tech <b>3-3 5C</b> )</i>	
Service Failure-1: Percentage of trips delayed for more than 5 minutes from their scheduled journey time	Service Failure-2: Percentage of incomplete or missed trips
<b>Narrative Description of the Project</b> <i>(You can attach one extra sheet one side only)</i>	
<b>Details of Actual Services, Provided by the Bidder as Single Entity or as JV Related to Maintenance Services for Track</b>	

**FORM TECH-6          DETAILS OF EXPERIENCE IN VARIOUS OTHER DISCIPLINES.**

Using the Format below, **to** provide the details as required in the Request for Proposal.

<b>01: OPERATION AND MAINTENANCE OF HIGH VOLTAGE SUBSTATIONS</b>			
Number of years of Experience:			
Total coverage area in acres supported by the High Voltage Substations operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>02: OPERATION AND MAINTENANCE OF <b>THIRD RAIL</b> TRACTION SUPPLY SYSTEM FOR TRAINS</b>			
Number of years of Experience:			
Total length of the track in Kms for which <b>third rail</b> traction supply is operated and maintained by the bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>03: OPERATION AND MAINTENANCE OF POWER SCADA</b>			
Number of years of Experience:			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>04: OPERATION AND MAINTENANCE OF LOW VOLTAGE POWER SUPPLY AND ILLUMINATION</b>			
Number of years of Experience:			
Total floor area in sq-m for which low voltage power supply and illumination is operated and maintained by the Bidder so far			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>05: OPERATION AND MAINTENANCE OF ATC BASED TRAIN SIGNALING SYSTEM</b>			
Number of years of Experience:			
Total length of track in Km, for which ATC based Train Signaling System is operated and maintained by the Bidder so far.			
Total number of stations in the Train Systems for which ATC based Train Signaling System is operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			

<b>06: OPERATION AND MAINTENANCE OF RADIO COMMUNICATION SYSTEM AND PUBLIC WIRELESS SYSTEM</b>			
Number of years of Experience:			
Total coverage area in acres supported by the Radio Communication System and Public Wireless System operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
<b>07: OPERATION AND MAINTENANCE OF RADIO FIBER OPTIC SYSTEM</b>			
Number of years of Experience:			
Total length of Fiber Optic Cable system in Km operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
<b>08: OPERATION AND MAINTENANCE OF FIRE ALARM SYSTEM, BUILDING AUTOMATION SYSTEM AND CLOCK SYSTEM</b>			
Number of years of Experience:			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>09: OPERATION AND MAINTENANCE OF PASSENGER INFORMATION SYSTEM AND PUBLIC ADDRESS SYSTEM</b>			
Number of years of Experience:			
(Number of Displays + Number of Speakers) supported by PIS and PAS operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>10: OPERATION AND MAINTENANCE OF CCTV SYSTEM</b>			
Number of years of Experience:			
Total cameras supported by the CCTV System operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>11: OPERATION AND MAINTENANCE OF VISUAL CONTROL PANELS FOR TRAIN OPERATIONS</b>			
Number of years of Experience:			

Number of Visual Control Panels operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>12: OPERATION AND MAINTENANCE OF BUILDING ACCESS SYSTEM</b>			
Number of years of Experience:			
Total building floor area in sq-m supported by the Access Control System operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>12 13: OPERATION AND MAINTENANCE OF TELEPHONE SYSTEM</b>			
Number of years of Experience:			
Total access gateways supported by the Telephone System operated and maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>12-14: OPERATION AND MAINTENANCE OF AUDIO VIDEO RECORDING SYSTEM</b>			
Number of years of Experience:			
Combined Storage Capacity in Tera Bytes of Audio Video Recording Systems maintained by the Bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>13 15: OPERATION AND MAINTENANCE OF FIRE FIGHTING SYSTEM</b>			
Number of years of Experience:			
Total floor area in Sq-m of public / commercial buildings for which Fire Fighting System is operated and maintained by the bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>14 16: OPERATION AND MAINTENANCE OF HVAC SYSTEM</b>			
Number of years of Experience:			
Total floor area in Sq-m of public / commercial buildings for which HVAC System is operated and maintained by the bidder so far.			
<b>Project Details</b>			

Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>15 17: OPERATION AND MAINTENANCE OF OUTDOOR AND INDOOR ESCALATORS</b>			
Number of years of Experience:			
Total number of escalators operated and maintained by the bidder in various projects so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>16-18: OPERATION AND MAINTENANCE OF ELEVATORS</b>			
Number of years of Experience:			
Total number of elevators operated and maintained by the bidder in various projects so far			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>17-19: OPERATION AND MAINTENANCE OF PLATFORM SCREEN DOORS / AUTOMATIC PASSENGER GATES</b>			
Number of years of Experience:			
Total number of Platform Screen Doors and Automatic Platform Gates operated and maintained by the bidder in various projects so far			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			
<b>17 20: OPERATION AND MAINTENANCE OF WATER SUPPLY, SENITATION AND SEWERAGE SYSTEM</b>			
Number of years of Experience:			
Total floor area in Sq-m of public / commercial buildings for which Water Supply, Sanitations and Sewerage System is operated and maintained by the bidder so far.			
<b>Project Details</b>			
Sr. No	Project Name	Project Duration (From-To) [MM-YYYY]	Firm Name with Project Brief including relevant information requested for evaluation
-			
-			

**FORM TECH-7A      SUMMARY OF TOTAL STAFF PLANNED FOR THE PROJECT**

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*Using the Format below, provide the details of total human resource strength for this project*

	FOREIGN	LOCAL
NO. OF STAFF PLANNED FOR KEY POSITIONS	A1	B1
NO. OF STAFF PLANNED FOR OTHER THAN KEY POSITIONS	A2	B2
TOTAL STAFF PLANNED	$C1 = A1+A2$	$C2 = B1+B2$
	$C1 + C2$	

*We undertake that all the staff proposed on Key Positions are in compliance with the minimum qualification criteria as required in this Request for Proposal*

22	Master / Technician of Signaling System	
23	Master / Technician of Power Supply	
24	Dispatch Team Leader	
25	Train Dispatcher	
26	Electric & Environmental Control Dispatcher	
27	Station Comprehensive Controller	
28	Driver	
<b>NON OTHER THAN SPECIFIED KEY POSITIONS</b>		
1		
2		
.		
.		



ITEM	MONTHLY PRICE (PAK RUEES)
RENUMERATION	X
DIRECT (NON-SALARY) EXPENSES	Y
TOTAL PRICE	X + Y

Notes to the Price Table:

- Lowest value of "X+Y" will determine the successful bidder, provided mandatory requirements are met and bidder has qualified technical evaluation successfully.
- Mobilization Advance will be given and recovered as stated in RFP . Contract Payment will be made on monthly basis
- The quoted price is inclusive of all applicable taxes as per Laws of the Government of Pakistan, but is exclusive of Sales Tax on Services which shall be added by the Client over and above the offered amount, as applicable/required under the relevant Tax Laws, to arrive at the Contract Price. Accordingly, the Contract Price shall be subject to adjustments for change in rate of Sales Tax on Services as and when applicable.

Date \_\_\_\_\_

Signature of authorized person

Name:

(Company Seal)

\_\_\_\_\_

In the capacity of

Duly authorized by

**Note: No cutting or overwriting is allowed. Any cutting or overwriting will lead to rejection of the financial bid.**

<b>Sr. No</b>	<b>ITEMS</b>	<b>MONTHLY PRICE (PAK RUEES)</b>
1	Foreign Staff on Key Positions	
2	Local Staff on Key Positions	
3	Foreign Staff on other than Key Positions	
4	Local Staff on other than Key Positions	
	Others if any not covered above to comply with requirement of RFP	
<b>TOTAL RENUMERATION</b>		

Sr. No	ITEMS	MONTHLY PRICE (PAK RUEES)
1	Consumables including lubricants, filters, fuel for locomotives and generators etc.	
2	Security of non-public areas of corridor	
3	Travelling including foreign tours	
4	Transport including duty vehicles etc.	
5	Office accommodations including utilities, furnishings etc.	
6	Foreign staff Residence including utilities, furnishing etc.	
7	Staff uniforms, ID cards etc.	
8	Recruitments	
9	Trainings	
10	Cost of licenses such as PTA etc	
11	Cost of Software including Asset Management, Ticket Management etc.	
12	Back office fee	
	Others not covered above to comply with requirement of RFP	
<b>TOTAL DIRECRT (NON-SALARY) EXPENSES</b>		<b>Y</b>

## OLMRTS Waste Treatment and Disposal Procedure, **Janitorial and Housekeeping Services in non-public areas**

The waste generated in the OLMRTS is roughly classified into three kinds for which respective treatment is agreed below:

Class	Categories	Description of Contents	Treatment/disposal
1	Toxic/ hazardous waste	Includes all waste with economic value such as waste lubricants, oils, painting, fluorescent lamps, bulbs, batteries, cells, electronic components, circuit boards, rails, nuts and bolts, metals (iron wires, boxes, parts), cables (wires) etc.	The Service Provider shall seal such waste; except rails, large rolls of wires and cables; in solid enclosure and move all such waste to the storage.  The storage shall be built by the Employer in the depot. The location and areas shall be confirmed and agreed by and between the Employer and the Service Provider.
		Includes all waste with no economic value such as organic solvent, detergent, waste dangerous goods container, cartridges, chemicals, etc	The Service Provider shall seal such waste in solid enclosure, and reseal them in yellow plastic bags provided by the Employer, which shall be subsequently placed in large bins located outside nearby the exit of the depot and stabling yard for onward disposal by local waste management company, the cost (if any) of which shall be borne by the Employer.
2	Organics/ canteen residue	Includes waste of no economic value generated from leftovers, vegetable waste, used edible oil.	The Service Provider shall seal such contents in blue plastic bags provided by the Employer, which shall be subsequently placed in large bins located outside nearby the exit of the depot and stabling yard for onward disposal by local waste management company, the cost (if any) of which shall be borne by the Employer.
3	General waste	Includes recyclable waste such as waste paper (scraps, package boxes), plastics (pipes, bottles, bags, tableware), glass (cullet, bottles), rubber, fabrics (wipes, gloves, cotton) , woods(wooden cartons).	The Service Provider shall seal such contents in white plastic bags provided by the Employer, which shall be subsequently placed in large bins located outside nearby the exit of the depot and stabling yard for onward disposal by local waste management company, the cost (if any) of which shall be borne by the Employer.

	Also it includes other reusable waste such as waste bricks, tiles, ceramics, construction residue, worn-out ballast etc.	The Service Provider shall arrange the disposal of such contents through its own resources.
	Sewerage, storm water.	Provisions of sewerage and storm water disposals shall be provided by the Employer at his own cost (if any).

### **Generally the scope of Housekeeping and Janitorial Services**

Generally the scope of Housekeeping and Janitorial Services shall include but not limited to the following in the non-passenger areas of the corridor:-

The L2SP1 shall:

- a. Abide all local, municipal, central, state, any other laws, rules, regulations, etc. otherwise shall be liable to be prosecuted.
- b. Agree that his / her workers/subcontractors, if any, shall not have free access to the system, unless they exhibit access cards. For this effect, the Service Provider may purchase such access cards;
- c. Clean all of the components of the corridor from inside and outside, such as chairs, doors, windows and grills, ceiling, floor, walls, steps, glass, grill etc;
- d. Cleaning of bathrooms / toilets and sanitary fixtures;
- e. Dusting of electrical installations and fixtures;
- f. Wet cleaning of windows and other structures made of glass from internal as well as external side;
- g. Wet cleaning of floors.
- h. Provide toilet paper, paper towels, liquid soap, toilet disinfectant etc on 24/7 basis;
- i. Provide and ensure toiletries such as refilling of liquid soap, toilette paper, etc. as and when required;

### **Management of Solid Waste in Offices / Stations**

The L2SP1 shall:

- a. Not be allowed to segregate recyclables within the premises of OLMRTS; however with the approval of the Employer, the L2SP1 may place waste bins of different colors for separate collection of recyclables.
- b. Have no property right over solid waste collected which shall remain property of the municipal waste disposable agency.
- c. Have no property right over consumable waste collected which shall remain the property of the Employer.

### **Plants and Green Areas in Depot and Stabling Yard**

L2SP1 shall fully maintain the plants (indoor and outdoor) and green areas in the depot and stabling yard handed-over to L2SP1.

### **Rodent and Mosquito Control**

L2SP1 shall put in place and carry out appropriate sound measured to control mosquitoes and rodents in compliance with applicable law. L2SP1 shall bear the costs (if any) and be wholly and fully responsible for damage to E&M equipment caused by rodents.